I gave her a ball composed of aloes ʒix, zingiber ʒij, and ordered that she should have nothing but tepid water for a few hours, and which she refused.

I visited her at four o'clock in the afternoon, and found her about the same. I ordered that sufficient water, mashes of bran, and hay, should be offered to her, and I did not hesitate on leaving her for the night.

On the morning of the 19th I found her worse, the spasms increasing, and was informed that she had taken neither food nor water from the time I last saw her; and as the ball given to her was made up by an apothecary, it was doubtful whether the aloes were sufficiently powdered, and, not operating, I abstracted 10 lbs. of blood, and gave a bottle of ol. lini, and tinct. opii ℥jss along with it.

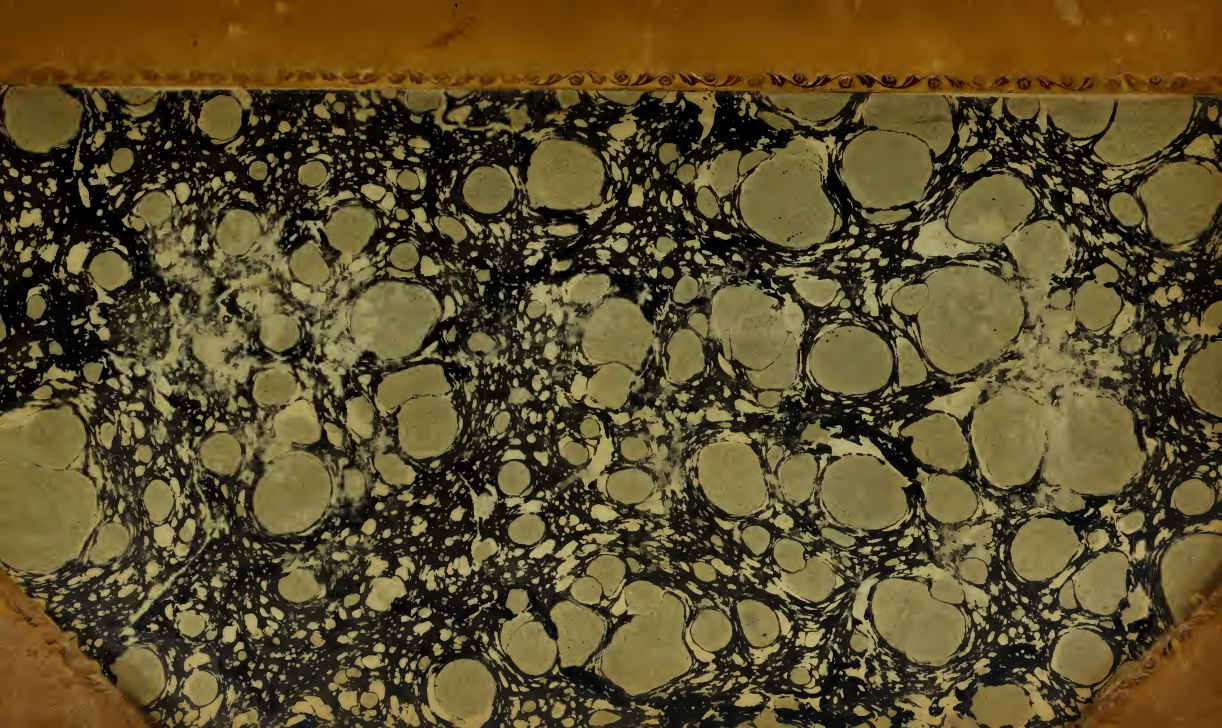
I then had her well wisped and clothed—gave her repeated clysters and gruel, which she at times took, and appeared to be relieved from the severe pain so much as to void a little hard dung, and she ejected her urine freely. The medicine not operating, I gave aloes sol. ʒiij, and had her taken out and walked for a few minutes.

At three o'clock, afternoon, I found her about the same, except that the pulse was small, and about 65: the clyster was repeated, which brought off a small quantity of fæces, and, afterwards, symptoms of medicine operating, and the urine freely ejected. I then left her in charge of the servant, instructing him, in case of her getting worse, to put her into an empty house, no loose box being here: this was done.

On the morning of the 20th, I found her frothing at the mouth, the eyes staring, and she was staggering about the house. She put her mouth to her right side, pulling at the skin several times, and then instantly expired.

On opening the abdomen in the ordinary way, I discovered the viscera in the different regions coated with fæcal matter; and, on pulling the colon to the left side, I readily perceived one of its flexures lacerated to the extent of seven or eight inches, contiguous to the right flank. Around the orifice it was in a gangrenous state, and, between it and the flank there was a large collection of dark-coloured fluid, having a strong fœtid smell: the remainder of the viscera had suffered little injury.

I have narrated the present case not with a view that such will soon find a remedy, but with reference to shew how the symptoms of internal accident and disease impose upon the veterinary surgeon, and the urgent necessity there exists for him to be cautious in his opinion in doubtful cases, however close the symptoms may resemble each other. In this case there were suspicions of the



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THE

VETERINARIAN;

OR,

MONTHLY JOURNAL OF VETERINARY SCIENCE,

FOR 1846.

VOL. XIX.—VOL. V. NEW SERIES.

EDITED BY

MESSRS. YOUATT AND PERCIVALL,

ASSISTED BY

MR. KARKEEK AND M. U. LEBLANC.

Ars Veterinaria post medicinam secunda est.—*Vegetius.*

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THE

VETERINARIAN.

VOL. XIX, No. 217. JANUARY 1846. New Series, No. 49.

EXTRAORDINARY CASE OF DISEASE IN THE HEART OF A HORSE.

(Condylomatous Sarcoma of the Valves.)

By WILLIAM PERCIVALL, *M.R.C.S., Veterinary Surgeon, First Life Guards.*

THE subject of this extraordinary—if not unique—case in veterinary medicine, was a black mare, three years old, purchased of Mr. Dyson, for the service of the First Life Guards, on the 20th of April of the present year, and immediately after purchase, on account of her age, turned, along with others of her own class, into straw-yard, from which, on the 17th of May, she was taken into the stable for shewing symptoms of the influenza at that time prevalent among the young horses of the regiment. Her influenza, however, took a favourable turn, and terminated in strangles, during her convalescence from which, being a remarkably high-spirited mare, and shy about her head, it was with some difficulty that her throat could be got to be dressed. On the 28th of May she was again turned into straw-yard, quite well, and there remained, for aught any body knew or saw to the contrary, in good health up to the time she was removed into her own stable for the purpose of being broke in for the ranks. This was on the 18th of August, and she then had a four-year-old mouth. In the beginning of September she commenced her longeing lessons. In the very first one she took, however, on the 4th of the month, it was evident to the riding-master while she was running in the longe, that, seemingly from "weakness" in her hocks, she could not go through her school-work without giving way; it was therefore deemed prudent to still defer her breaking in, and, that she might

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gain strength in her hocks, to turn her once more into straw-yard. It may be remarked here, that her hocks were found fault with on account of their form at the time she was purchased; but no disease was detectible in them, neither did she then in her action evince any "weakness" in them, or, at least, any more than might be expected from their faulty conformation, and from her tender age.

On the 19th of October my attention was drawn to her in the straw-yard, as looking dull and tucked up, rough in her coat, and not "doing well;" and on these accounts I had her immediately removed from the yard into a loose box, in order that attention might be paid to her, and proper care taken of her. For the first few days I was quite unable to say what her complaint might be. She was dull and dispirited, looked altogether far from well, and yet there were to be discovered no symptoms of a character to indicate any particular disease. The most remarkable symptom at this period was a crouching in her gait, as though she felt soreness or pain in moving her hind parts: she walked with slow, cautious, and measured step, and rather "dragged her hind quarters after her" than moved them in harmony with the fore parts. Notwithstanding her spirits were low, her appetite was good, at least so far good that she ate pretty well all that was put before her, though not with any avidity, or indeed with any great deal of seeming relish: still, slow as she ate, she consumed her ration of provender. She had aperient medicine given her, and afterwards a blister was applied along the lumbar region of the spine, from a notion that there might exist some affection of the spinal marrow; for, independently of her peculiar gait, she stood in the box with her back arched and her hocks flexed, and fore feet thrown back underneath her body as far as possible, as though she had pain in her back or loins. Beside this, the only other symptom worthy of remark was a particularly free-beating distinct pulse, about 60; but, as there was no disturbance of her respiration at this time, not much notice was taken of this circumstance. She was bled on account of it, but the abstraction occasioned little or no abatement of the pulsation, and was attended with no benefit, save affording this additional information, that the coagulum of her blood was large in proportionate quantity, and appeared at the same time the most complete solid of the kind, the firmest and toughest crassamentum, I had ever felt or handled.

Looking to-day—the 12th October, the third day from her admission—over the (half) door of my patient's box, meditating on her case, I was struck with the extraordinary pulsations I saw in the jugular vein in the side of the neck opposed to me. They were not the undulations usually perceptible in the jugulars,—they were

more like, in fact they were, the vibrations of an elastic tube which by some internal force had become suddenly filled to distention, even to coiling and actual saltation out of its place, and as suddenly emptied again. At this moment the thought entered my mind that I had a case of disease of the heart; and in this opinion I was confirmed when I applied my ear to the left side of the thorax and found the heart thumping the ribs in a manner I had no recollection of having heard before. The impulse was both forcible and distinct, could be heard on the right as well as on the left side, indeed through almost any part of the parietes of the thorax, and in the intervals when it was not heard there was a tumultuous sort of sound, destroying the rythm of the heart's actions, very different from the double beat and interval of silence conveyed to the ear in a state of health. The regurgitation of blood into the jugular veins was palpable enough; at the same time it was evident from the extraordinary sounds of commotion heard everywhere in the region of the heart, that cardiac disease of some kind or another was the nature of the mare's complaint. That it was not pulmonary was argued (setting aside the unnatural action of the heart) from the circumstance of its being only *at times* that her respiration became disturbed: on such occasions her flanks were seen heaving, her nostrils opening and closing: this, however, lasted but a short while, all again soon became tranquil, and she stood once more breathing as freely and as calmly as a horse in health.

The disease having been so far made out, it was deemed advisable to bleed her again; also to put blisters upon her sides, and to give her some febrifuge and sedative medicine. She bore the second loss of blood as well, and the blood proved as redundant of crassamentum, and the coagulum as firm and tough as on the former occasion. She had shewn some tumefaction in the legs from the first; but at this time her œdema was becoming a more prominent symptom. Walking exercise having been of late forbidden, both on account of the presumed nature of the disease, and because the mare was now evidently falling away in flesh and losing her strength, notwithstanding her appetite held good, and that she took her rest, lying down a good deal and seeming while she was lying to be easy and comfortable. The mare, notwithstanding, now rapidly declined, daily looking more and more like a phthisical subject, drooping in her spirits and becoming fastidious in her appetite. Carrots were got for her, and these for a couple of days she ate with evident enjoyment. No fresh symptoms presented themselves until the time of her death, which happened on the 25th of October, she standing up the last day to the moment of her falling and being seized with convulsions, in which she died.

Post-mortem Account.

October 26th.—The lungs were unusually pale, contained very little blood, and were *in situ*, in a measure concealed from our view, as well in a degree compressed, by the extraordinary bulkiness of the pericardium and its contents. On slitting open the pericardiac cavity, the heart, which seemed quite to fill it, at once burst forth, evidently greatly augmented in volume. About a couple of ounces of fluid of the ordinary character lodged at the bottom.

THE HEART, stripped of its adherent membrane, and washed of its blood, weighed 9 ℔. 11 oz.: the ordinary weight of a heart being—of a horse at her age—commonly, something less than 7 ℔. Red lines and spots, demonstrative of inflammation, were everywhere visible upon the heart's surface, but disappeared the moment its membranous tunic was dissected off, shewing that the substance of the heart had not partaken—or only in a slight or secondary degree—of the inflammatory action; and what rendered the existence of inflammation still more marked was, the detection, in two or three places, of infiltrations of sero-albuminous effusion between the layers of this tunic. The muscular substance of the heart was quite free from any signs of inflammation. Both the right auricle and ventricle shewed increased thickness of their walls, and their cavities, that of the latter in particular, as well as the auriculo-ventricular opening, were palpably dilated. The left auricle and ventricle was also in a state of dilatation, but without any material increase of their substance.

THE VALVES were the parts especially diseased, and those most altered were the semilunar valves at the mouth of the aorta. They shewed in great perfection that kind of disease described by authors on human medicine as *condylomatous sarcoma.* The membranous substance of the valves was altogether changed into thick wart-like growths, presenting cauliflower or fungus-like edges, resembling very much what one now and then sees in warts with ragged edges, growing from the penis, and occasionally from the skin. One of the three semilunar valves presented a bunch of the magnitude of a walnut; the excrescences of the other two were about as large as good-sized peas. Of these two valves the unnatural growths proceeded from the convex or ventricular sides, their concave or aortic surfaces still being at their attachments membranous; whereas, of the valve most diseased not a vestige of membrane remained. THE BICUSPID VALVES were in a similar state of disease; but in them it was in a less advanced stage. They were both more than treble their natural thickness,

their under or ventricular surfaces having the tubercular condylomatous feel, their upper surfaces and their attached parts being in appearance healthy. THE TRICUSPID VALVES around their floating borders were at least four times their ordinary thickness, and from the inferior or ventricular surface of two of the valves—from one more than from the other—were growing excrescences of the same nature as those above described, of the magnitude of large peas: the superior (auricular) sides presenting, as in the former case, their natural aspects. The semilunar valves of the pulmonary artery bore no marks of disease. The endocardium exhibited the same red streaks and spots, signs of inflammation, as had been observed upon the reflex pericardium.

28*th October*.—I had had the mare's hocks cut off before she was sent away, for a purpose unconnected with her case, when, on opening them to-day, to my surprise, I discovered them both to be in a high state of disease. Their cavities were full of deep or amber-coloured synovia, the fluid from one of them, actually collected, measuring full an ounce and a half*, and when poured into the glass was found loaded with flocculi of albumen, which, on standing, subsided to the bottom. The addition of nitric acid to the clear liquor produced a general and copious creamy white precipitate. The internal surface of the capsule of the joint presented everywhere—save where the synovial membrane is reflected upon the bones—a coating of one-fourth of an inch thick of lymph-like substance of the same amber colour as the synovial fluid; and the sheaths of the tendons (of the hind limbs) as well as the pastern, coffin, and navicular joints—the latter in the most marked degree—presented the same amber tinge and incrassated condition of the synovia contained in them, with here and there some appearance of similar effusion. It is probable other joints may partake of this morbid action; but this we have now no means of ascertaining. In the morbid condition in which the hock-joints were found we appear to have the key to the explanation of the "crouching gait" of the mare, mentioned in the symptomatology of her case, and which in the first instance was erroneously attributed to some spinal affection. It is true that the spine was not examined after death; it is equally true, however, that the stiffness or soreness created by motion, which was referred to the spine, was of a character to indicate stiffness in all her joints, and as such of her joints as were examined presented appearances of disease, there seems every reason for believing that her complaints were not spinal at all, but *arthritic*.

* In a state of health the hock joint may contain about three drachms of synovia—certainly not more than four.

Rationale of the Case.

Commencing our analysis of the case with the important fact of the mare being ascertained to be *sound*—at least free from any detectible appearance of disease—in the month of April last, when she was purchased, and adverting to the next important fact, viz. that of her having been taken up from straw-yard in the following month (May) on account of having symptoms of an influenza, which, although in her case it *appeared* to terminate in strangles, in the cases of several others ended in disease of the synovial structures of the limbs; and adding to these two, the third link in the chain of her pathological history, viz. the fact of her rejection by the riding master in the month of August following on account of her manifesting "weakness" in her hocks, although at the time she exhibited no signs whatever of ill health; and, lastly, appending thereto the completing link, viz. her being taken up again from straw-yard (after having been turned out a third time) with symptoms. not of weakness in her hocks alone, but of weakness, stiffness, and soreness, in *all* her joints (thought at the time to be in her spine) and with symptoms of constitutional disease in addition, which was at first obscure in its nature, but subsequently detected to be in the heart;—I say, connecting all these circumstances together—*the state of soundness, the influenza prone to arthritic translation, the supervention of arthritic disease itself, followed by cardiac disease and death*—have we not fair reason to come to the conclusion, that the arthritic disease, in which the influenza, as it would appear, terminated after the mare had been turned out again into straw-yard, had by metastasis (induced, perhaps, by the great quantity of wet weather she had been exposed to) struck inwardly upon her heart, produced in it sub-acute pericarditis, with endocarditis, and so diseased and ultimately altered the structure of the valves? It might be supposed that, from the nature of the change from their natural structure the valves had undergone, the cardiac disease may have been of *prior* date to the arthritic affection. In answer to this, I would say, that nobody can tell how soon the mare might have felt her arthritic disease after she had been turned out in a healthy, or at all events convalescent, state, on the 28th of May, though her general health and spirits had certainly at no time afterwards failed her, until the last time she was taken up into the stable. Any little stiffness she might have had in moving would probably, so long as she was loose in the straw-yard, have escaped notice; so that, although the first intimation we had of any disease in her joints was the "weakness" complained of by the riding master, it does not, as I said before, at all follow that she might

not—in fact, in every probability she had—the disease some considerable time before this. The mare's general health certainly did not give way until the valves of the heart had undergone such impairment as rendered them unfit any longer to serve the office of valves. The extraordinary pulsations observed in the jugular veins were the effect of the reflow of the blood into the vena cava through the right auriculo-ventricular orifice; and the same taking place with greater force still on the left side of the heart would cause a reflex current of blood upon the lungs, and give rise to disturbance in the respiration, which, however, was observed only occasionally. Moreover, the imperfection in the action of the valves appears to have given rise to dilatation of the cavities of the heart, to those on the right side more than to those on the left side, and to hypertrophy of the former as well, of the right auricle in particular. From the highly morbid state of the semilunar valves of the aorta, that vessel in its contractions must have forced much of its blood back into the heart, that which was at the same time forced into the arterial system not only being in consequence less in quantity, but having less impetus given to it to move the general stream onward: the effect of this must have been congestion in the capillaries, from which resulted œdema of the dependent parts of the body, the breast, belly, sheath, and legs. Such is the history of a case I have never seen a parallel to in the horse, although I believe it to be one not so uncommon in the human subject. I have made a preparation of the valves of the heart, which I shall be glad to shew to any gentleman desirous of viewing it.

MR. W. A. CHERRY's REJOINDER TO MR. WRIGHT.

MR. WRIGHT having favoured me with some further "remarks" on my paper on Coronitis, I must, in justice to myself, make a reply.

I must beg to draw Mr. Wright's attention to a more careful perusal of the original paper; and I think it will appear, unless I have not clearly expressed myself, that he has judged erroneously of the tenor of my remarks; for the term *inflammation* does not once occur, and it is only by inference that such is my meaning, for I refer to *irritation* directly, and by inference only to inflammatory action; and it was not until my first letter in reply to Mr. Wright's remarks, that I distinctly stated my opinion as to its being a true *phlegmasia*, and this more in a general point of view than any other.

After having made such a remark as the following—"coarse nailing, as applied to the large majority of feet, is the most certain means of producing the disease. *The reasons for this are too long to enter upon here ; but I hope to be able to show that I am correct at some other time :*" it must be apparent that I had reasons, and in my own mind convincing ones, to give for my stating that "coarse nailing" was a fruitful cause of coronitis; these, however, not being made as yet public, it follows that all premature remark on them must fall to the ground.

Similar observations will also apply to other remarks of Mr. Wright's; as I have distinctly declared that I reserved the more minute detail of the facts there dryly stated until the time should arrive for giving such explanations.

Dec. 5th, 1845.

SUGGESTIONS FOR THE ESTABLISHMENT OF A GENERAL ANNUITY FUND,

FOR THE BENEFIT OF INFIRM AND INCAPACITATED MEMBERS OF THE VETERINARY PROFESSION, THEIR WIDOWS, AND ORPHANS.

By G. BAKER, *M.R.C.S., and R.C.V.S., Reigate.*

THE commencement of a new year is a period that gradually brings reflection to the minds of all, by reminding us that "another arch has been turned over the cave of memory." We are induced to recall the events of the past, that stand like receding columns dimly visible through the long vista of departed time. But thought is only morbid indulgence if it do not spring forth into vigorous action; and at this season of the year we are bound alike by gratitude for the past to learn humble confidence for the future, and to seek to diffuse around us those kindly sympathies which ought to be the animating principles of our lives.

I have prefaced the proposition I am about to submit to the members of our profession with these few observations; and, impressed with the advantages that would result from an immediate, warm, and earnest co-operation, I trust, as I unfold the practical details of my plan, that I may be so fortunate as to carry with my views the favourable consideration of those whose weight and influence may urge its claims more powerfully than myself. The

object of my desire is to form and establish on a firm basis a General Annuity Fund, for the payment of annuities to infirm or incapacitated members of the veterinary profession, their widows and orphans. The fund to be open to subscriptions from the legally qualified and certificated practitioners of the veterinary profession; and I suggest, as a means of removing the calamities of want in cases of infirmity, or in the event of death, that an annual subscription of one guinea be allowed to accumulate for five years, so that a fund may be secured and stability given to the institution.

Now, trusting to the high aim and usefulness of such a provision, I think I shall not over-rate the philanthropy of our professional brethren when I calculate on five hundred members quickly enrolling their names as members of this provident and self-supporting fund. At the expiration of the five years we shall find our accumulations, including interest, will amount to about £3000. Now, with the interest on this capital, and the yearly subscriptions, we shall have an available income of £600 a-year. In calculating the claims upon this income we may fairly consider them, I think, as at three per cent.; and, admitting that £20 per annum were allowed to each disabled member, £300 would be consumed; and averaging at the same rate widows and orphans, and allowing them £15 per annum, £225 would be required.

We should now have a balance of £75, some of which would be required for the payment of an intelligent man as secretary. This appointment should be held by some one whose other occupations rendered him well qualified for the details and calculations attendant on his office: other matters of expense must also necessarily occur. I have no doubt that benefactions would occasionally arise from the more wealthy, through which the usefulness of this fund might be enlarged and its bounty diffused.

This, then, is the simple outline of my plan; but I must disclaim any merit for originality, as it is already in operation with the medical profession. Should it, however, be favourably entertained, I would propose that a meeting be called and a committee formed to consider and determine the best preliminary steps to be taken for the establishment of an institution of the character I have now suggested.

I know there are many assurance companies where men may secure provision for their families by a yearly outlay during their lives. But this does not meet the difficulty. Few can spare the large sums that are annually required for even this object. Amid the discouraging vicissitudes of a professional career, and in the event of sickness, the professional man derives no benefit from his payments, but, on the contrary, is obliged to restrict himself of many comforts in order to keep up the payment of sums from

which his family only can derive assistance when he to whom they are indebted for every support is no more.

In the hour of sickness the professional man feels its burthen more sensibly than another, because his presence is necessary to carry out his intentions, to watch the effects of remedies, and to devise means for the relief of pain. He cannot delegate his professional skill to another; and it aggravates the depressing effects of sickness to know that he is sought in vain. Perhaps of all the trials to which physical infirmities subject us, there is none so melancholy as when they produce the inaction of previously well-exercised faculties.

But, supposing that the professional man is spared the trial of sickness, he must still look forward to old age, to the decay of his strength, and probably the decline of his faculties. He naturally seeks that

"Blest retirement, friend to life's decline,"

which will enable him to retire from the cares and anxieties of active life. The damps of Autumn sink into the leaves and prepare them for the necessity of their fall; and thus are we, as years close around us, detached from the bustle of active life by the gentle pressure of imperceptible decay.

Divinity, law, and medicine have their dictinct Annuity Funds, to which the annual payment of a small sum enables the members, should they be unavoidably reduced to require assistance, to trust to the realization of a provision for the evil day, without the humiliating feeling of subsisting entirely on the bounty of others; they have a just and equitable claim to seek relief, independently, in their adversity, having contributed in their prosperity to the common stock; and I feel confident we shall adopt a system so wisely set us by other professions. Mutual sympathy is but another name for charity in its most exalted sense. Next to the ties of kindred and of country, the closest that can bind men together is the common pursuit of an honourable profession: it produces a community of feeling with all those who are pursuing the same course; a sense of mutual dependence will engender a feeling of kindly sympathy;

"Never elated when one man's depressed,
Never dejected when another's blest."

This feeling of unity was one of the brightest visions of the Greek philosophers, when the suffering of the meanest subject was a calamity to the whole community. But I feel I have written enough. The vicissitudes of professional life, its struggles and its trials, must come home to the heart of every one who has ear-

nestly and deeply considered the subject: nor can any object be more desirable than that of providing against its contingencies.

If I have written thus much and thus long for the present generation of veterinary practitioners, endeavouring to arouse the latent spirit of good fellowship as brothers in the same course of professional labour, I feel I should have most imperfectly closed my letter did I not impress upon them a duty we owe to those sons who are looking forward to succeed to our position,—a duty equally demanded of us by the voice of public opinion, and without which we cannot aspire to make our calling a profession, but it would sink into the routine of mere trade. Let us, then, educate our sons so that they may go forth with every claim to public confidence and support, and they will assuredly meet with public reward: in fact, unless we resolve to educate more highly, our profession will become like a leaf committed to the waves, and be forced along the stream of time a mere atom, wholly unconnected with the great scheme of scientific advancement.

Who has not personally considered—who has not personally experienced—that, of all the blessings which it has pleased Providence to allow us to cultivate, there is not one which breathes a purer fragrance, or bears a more heavenly aspect, than education? It is a companion which no misfortune can depress—no clime destroy—no enemy alienate—no despotism enslave. At home a friend—abroad our introduction—in solitude a solace—in society an ornament. It chastens vice—it guides virtue—it gives at once a grace and government to genius. Without it, what is man? A splendid slave—a reasoning savage, vacillating between the dignity of an intelligence derived from God and the degradation of passions participated with brutes. But cast your eye over the monumental mass of ancient splendour, once studded with the stars of empire and the splendour of philosophy. What erected the little state of Athens into a powerful commonwealth, placing in her hand the sceptre of legislation, and wreathing around her brow the imperishable chaplet of literary fame? What extended Rome, the haunt of banditti, into universal empire? What animated Sparta with the high, unbending, adamantine courage which conquered Nature herself, and has fixed her, in the sight of future ages, a model of public virtue, and a proverb of national independence? What but those wise public institutions which strengthened their minds with early application, informed their infancy with principles of action, and sent them into the world too vigilant to be deceived by its calms, and too vigorous to be shaken by its whirlwinds.

I will now conclude my subject by commending the cause to the kind sympathies of my professional brethren, and trust the benevolent object will meet with their co-operation and support.

FROM THE SECRETARY OF THE FARMERS' AND GRAZIERS' MUTUAL CATTLE INSURANCE ASSOCIATION.

To the Editors of "The Veterinarian."

Gentlemen,

In your Journal of last month Mr. Tombs makes the following observations in reference to the Farmers' and Graziers' Mutual Cattle Insurance Association :—

"As things do not go on quite smooth with the veterinary colleges and the profession, nor with the latter and the Cattle Insurance Association, permit me to give my opinion on the different subjects. First, with the Cattle Insurance Society and the veterinary practitioner :—This Society ought to shew a reciprocal feeling to the profession, which has furnished it with such information as to enable it (the Association) to form rules and regulations for its future guidance. In my opinion, the regularly educated veterinary surgeon should be called in to every case of disease and lameness of insured cattle when practicable—the usual farrier in cases of emergency; but as soon as the veterinary surgeon's services are available, the farrier should give up the case to him; *and on no account whatever should the proprietor be allowed to treat the sick or lame beast himself.*"

I may as well pause here for a moment to add the circumstances which appear to have given rise to these strictures.

In THE VETERINARIAN for November, Mr. Cartwright, in his valuable paper on Veterinary Obstetricy, makes the following remarks on the Farmers' and Graziers' Mutual Cattle Association :—

"As many of us are veterinary surgeons to the recently established Cattle Assurance Association, I cannot avoid alluding to the situations we hold in connexion with the inspectors and managers. The last two cases belonged to farmers in this neighbourhood (Whitchurch), and I scarcely doubt that I could have saved them both, and also one that I shall mention hereafter; but, according to the rules of the 'Mutual' (and these cases belonged to that Society), the 'Association will not interfere with the treatment of the usual veterinarian or farrier.' In many cases, as in the above, the farmers are generally their own farriers, or get the assistance of some ignorant neighbour. On the other hand, there is a rule that says, 'the Association, however, will not pay for animals which may die from bad treatment directly caused by the owner, or by his instigation.' Now, I would ask any veterinary surgeon (and he only

is the person competent to give an answer to the question), Did these animals, or did they not, die in consequence of bad treatment? Of course, their answer would be in the affirmative; if so, then how does the veterinarian stand between the Association and the assured? If the former honestly does his duty, of course they ought not to have been paid for; which they were. On the other hand, it may be said, as the 'Association will not interfere with the treatment of the usual farrier,' that they ought to be paid for; and so I think, according to the last rule. If such, therefore, is to be the case, that every person can either doctor his own stock or employ any drunken, ignorant, assuming vagabond, then, I think, if we are faithful to ourselves and our profession, we ought immediately to resign.

"I am perfectly aware that the Association wishes to steer clear of giving offence to the farmers in not prohibiting them from employing their old accustomed practical and experienced farrier: yes, and so would I; but I do most solemnly protest against the sanctioning every ignorant farrier or blacksmith. It appears to me that, if the managers were true to the interests of the society, they ought to suffer those only to attend to stock that are competent to do so, and to put a stop to farriers and ignorant blacksmiths attending on them. I am confident that there is more stock lost in my parish in consequence of the quackery of the owners, the employing of ignorant farriers, and the *kind* interference of knowing ones, than would pay the whole amount of their poor-rates.

"Some time ago I was called on by our Inspector to see a cow that had acute inflammation of the udder, and which had been attended to by as ignorant an ass of a blacksmith as the earth ever carried. When I went over I found she had died a short time before. On inquiring about the case, I found that the cow had been ill several days, and that she had not been even as much as bled. He was urged to do it; but he observed, that if he did so it would be immediate death.

"I urged, conscientiously, to the Association, that the insured should not be paid for her; but was over-ruled by Mr. Shaw and the inferior officers."

We are at all times most happy to render honour where honour is due; and without wishing to criticise the exordium or deduction of Mr. Tombs, I beg, with your permission, to put that gentleman right on a matter of fact. This I can do without fear of contradiction: *litera scripta manet.* Among the instructions given to the agents and inspectors of the Association are the following directions:—

"*The Veterinary Surgeon.*—The object of the Association in appointing veterinary surgeons is not for the purpose of giving medical advice in cases of illness, but to decide the propriety of

the course of treatment which is being pursued with sick stock, when the inspector questions the correctness of it. Besides confirming the inspector's doubts, the veterinary surgeon is to be consulted whenever the inspector is at a loss to decide the expediency of ordering cattle to be slaughtered.

"Although the Association do not take the treatment of sick stock under their own direction, yet it is desired that their veterinary surgeons should have the support and recommendation of their officers.

"This remark must be specially attended to, it having come to the knowledge of the directors that many animals which, in every probability, might have been saved by proper assistance, have been sacrificed to the ignorance of men pretending to a knowledge of the veterinary science."—*Instructions*, page 11.

Again, in the instructions for insuring horses,

"The agent and inspector are explicitly informed that the office does not undertake, and will not pay for, the medical treatment of sick animals. If they are not rightly attended to, the office will remonstrate with the owners, and endeavour to have properly qualified men employed, when reference will be made to the eligibility of consulting its officers. It must, however, be understood that, in such cases, the graduated veterinary surgeon of the district (if there be one) will have the preference."—Page 42.

I think that Mr. Tombs will allow, from these extracts, that we *do* shew a strong feeling to have the regularly educated veterinary surgeon employed. The practicability of doing so he very correctly doubts. The old adage, of taking a horse to the water, &c., is applicable to us. We cannot, at least at present, compel the insured to employ graduated men—that must be a work of time. We may have the appliances for giving sound advice, and we may intimate punishment if our rules be not complied with; but where we might have a right to interfere it would be in those cases where the proof of negligence and want of skill would come after the casualty had occurred, while the coroner's inquest would be holden after the fatality. Have we shewn any disposition to shield ignorance or to countenance quackery in such instances? Certainly not. Mr. Cartwright writes hastily when he states that the communication which he so kindly made was "over-ruled." On the contrary, his remonstrance received the most respectful attention. It was made known to the agent through whose hands the party in question was insured, and his explanation required; and the averment was, that the insured had acted in ignorance of the rules, and had done the best he could under existing circumstances, and the claim was recommended to be allowed. What would Mr. Cartwright have done? I am sure his love of fair dealing would have prompted him to do as we did—*to pay it.*

Our aim, from the first, has been to uphold and support the veterinary profession, and to induce the employment of properly educated men, and to do away with the "services" of "ignorant blacksmiths and the *kind* services of knowing ones." But to do this much delicacy is required; prejudices have to be overcome, and a conviction to be established in the minds of owners of cattle that their old ways of procedure can be amended. Ought it to be done hastily and harshly? Can you say to the farmers who employ, as Mr. Cartwright admits they generally do, "their old and *experienced* farrier," you shall engage the veterinary surgeon of the office or you shall not be paid in case of loss? Would any man of spirit admit of such rude dictation, especially when it remained to be proved that its interference would be beneficial? It is only by calmly pointing out the rocks and shoals they have run against and foundered upon, and the lights they have neglected to observe, that a better state of things can be hoped for. Men will not endure threats; and it is only by patience and experience that they can be brought to see the errors of the past. Our duty is to appoint the best qualified veterinary surgeon we can find to every agency, and to urge that he has the confidence of the office; and to ask the insured to employ him in place of men who have not been so fortunate as to have had his education, his experience, his knowledge. This we do. Can we, ought we, to do more?

But I do not think that Mr. Cartwright is sincere in his recommendation to his brethren to withdraw their valuable and valued assistance from us. Mr. Cartwright holds the appointment of consulting veterinary surgeon to this Association for Whitchurch and Malpas, and likewise the agency and surgeonship of *another* Cattle Insurance Company, which he highly extols. I know not whether he sings: I should think not, or he might remember an old song, which says,

"It is good to be merry and wise; it is good to be honest and true:
It is good to be off with the old love before you are on with the new."

At all events, he does not agree with the Beggars' Opera—

"How happy could I be with either, were t'other dear charmer away!"

I have the honour to remain,

Your's, &c.,

HENRY FLOWER,

Secretary to The Farmers' and Graziers' Mutual Cattle Insurance Association.

P. S.—I inclose the printed instructions, that you may verify the extracts I have made.

Strand, Dec. 2, 1845

VETERINARY OBSTETRICY:

THE VARIOUS PRESENTATIONS AND METHODS OF EXTRACTING THE FŒTUS.

By W. A. CARTWRIGHT, *M.R.C.V.S., Whitchurch, Salop.*

[Continued from vol. xviii, page 679.]

LYING ON ITS BACK, WITH THE HEAD AND FORE FEET PRESENTING.

IN the human subject, great stress is properly laid on having the head and other parts in a proper position, so as for the fœtus to pass through the pelvis with the greatest ease, and there is not the least doubt but that we should attend to this principle as much as possible in our patients. In most of these cases in our patients there is no difficulty whatever in extracting the fœtus in the above position, as it will come away nearly as easily as when put into a natural one; but in pulling at the legs we must, if any thing, draw them more upwards towards the tail, whereby we shall make more room for the head. I know some persons are in the habit of laying hold of the fore legs, and will writhe the whole body into its natural position; but I think it quite unnecessary to give ourselves that trouble, as I have frequently extracted them in the contrary position, without any difficulty or bad consequences. In some of these cases it will be absolutely necessary to affix cords to the legs and jaw, and especially to the latter, in consequence of the head being liable to fall against the rim of the pelvis, or not come sufficiently forward; but when the uterus acts pretty forcibly it raises the head up into the passage.

FORE LEGS NATURALLY PRESENTING—HEAD LYING BETWEEN THE FORE LEGS AND UNDER THE BREAST, OR FORCED BACK TOWARDS THE WITHERS, OR AGAINST EITHER OF THE SIDES.

Cases of this description are of very frequent occurrence, and often give us a vast deal of trouble, so much so that a person has observed, "that he had never seen a case successfully treated without being obliged to dissect the fœtus away;" but with this observation I cannot at all agree, as I have frequently righted the head without performing embryotomy. Often it will be found that the head is not merely bent back towards the body, but that, in consequence of it having lain in that position for a great length of time, the muscles of the neck have become shortened, and the head

almost immovably fixed; and even the ribs and other parts have been found to be altered in shape by the pressure they have received. If it is merely bent back in any of the above positions we should try to draw it into its proper situation with the hand, or by passing a cord around the jaw to pull at, by which means we shall sometimes succeed; but if from extreme pressure, caused by the contraction of the uterus on the fœtus and on the hands, which sometimes is so great that we cannot endure the benumbing pressure, we must try to introduce hooks into the orbits or different parts of the head, whereby we shall have greater power to draw. If we do not succeed, our assistants must pull at the legs a little, so as to enable us to pass a cord around the neck, as near as possible to the head; after which the legs must be left alone, and a person must force back the front of the thorax, whilst others pull at the cord around the neck: another should try to take the pressure off the head by forcing his hand between it and the uterus, and, if possible, to lay hold of the nose with his fingers, or pull at the head by the hooks. If these plans do not answer we must remove one of the fore legs; after which we must pull at the other leg, and get the chest as near as convenient; when we must cut through the costal cartilages and remove the thoracic and abdominal viscera; or we may empty the thorax and abdomen quite as well by making an incision between the two anteriormost ribs, and then dividing the costal cartilages. After having done so, it will be found that the ribs will overlap each other, and that the fœtus will be very much lessened, and that the remainder of it may sometimes be extracted by pulling at the leg and neck, even in this doubled position. Sometimes we may succeed quite as well by removing both of the fore legs, whereby we shall have more room to get at the head, so as to bring it into its proper position, after which we may remove the body by hooks and cords. We may also draw the fœtus forward by one leg, the other having been removed, so as to bring the neck within reach, which we must divide; after which, the body may be allowed to recede so as for us to lay hold of the neck with hooks, and so draw the head out. After having extracted the head we may remove the remainder of the body by inserting crotchets into the ribs or about the spine, or, if possible, we may get hold of the hind legs and extract the fœtus, as in a breech presentation.

I can well imagine a case that might occur, where, the head may be so far bent back and the fore legs presenting, and it might be possible for us to lay hold of the hind legs; if so, I should advise them to be brought forward and the feet and fore quarters forced back, and the fœtus extracted as in a breech presentation.

Several instances are on record, both in the mare and cow, where fœtuses have been extracted in this position by force, without

removing any part of the body; even the thoracic or abdominal viscera; and also, a few solitary instances, where it has been expelled by the sole effort of the parent, and she has survived.

Although such has been the fact, yet I hope no veterinary surgeon, in the present day, who has any character for humanity, will dare to torture an animal whilst means are in his power to avoid it.

Fore Legs; one Hind Leg; no Head.

As a matter of course, in these cases we must first get the head up into its proper place, and afterwards force the hind leg into the uterus, and, having done so, we shall have a natural presentation; but, if the head cannot conveniently be righted, we may try to get the other hind leg up, and then force the fore ones into the uterus, and extract as in a breech presentation.

Head; Fore Legs; one Hind Leg across the Fore Legs, under the Breast.

This is rather a rare presentation. Wherever it is met with we must fasten cords to the fore legs, and afterwards get an assistant to force the fore parts of the fœtus back into the uterus, whilst we remove the hind leg from across the fore ones back into some better situation, after which we may attempt its removal: but in case we do not succeed, we must draw the hind leg out and amputate it at the hock, or as high up the limb as possible; afterwards, the remainder of the hind extremity may be pushed back out of the way, and the fœtus readily extracted.

A Mr. T. Harslot, of Cooladangan, Arklow (The Veterinarian, vol. xiii, p. 728), met with a case of this description in a mare. He cut the hind leg off at the hock, but was afterwards unable to remove the fœtus in consequence of it being swollen; but by removing a fore extremity and the intestines, he was enabled to do so, and the mare, by very suitable treatment, was soon convalescent.

Four Legs, with or without the Head.

These cases, sometimes, are not a little puzzling, in consequence of the probability of confounding the legs, from the uncertainty of their being twins. We, however, must examine the limbs very carefully, and we shall generally soon discover whether there are twins, and also which legs they are by the projection of the os calcis. Having done so, we must try to find out which part of the body is most likely to come away best. If the head should be also pre-

senting, our best procedure will be to fasten cords around the fore legs, to pull at, and to force the hind legs and quarters in, with both our hands if necessary, while our assistants are pulling at the legs and head, by these means the anterior parts will occupy the passage, and will soon exclude and keep out the hinder parts: but in case the head should not be presented, it will be far more advisable to fix the cords around the hind legs, and force the fore ones in, while assistants are pulling at the cords; when we shall find that the rump and tail will soon make their appearance, and extraction will take place as in a breech presentation.

In some few cases it will be found that four feet may have been presenting, and that only the two foremost have made their appearance, whilst the two hinder ones are out of sight, within the pelvis, jutting outwards against its sides. Knowing this to be the case, we ought to be very careful not to use too great force at any time in extracting the fœtus, without having previously examined whether this cause of obstruction exists; for if it does, of course, different plans must be adopted for its extraction, in illustration of which circumstance I have related in the eighteenth volume of THE VETERINARIAN, page 608, a case in point, to which I refer your readers.

TWINS, HEAD AND SIX LEGS.

We need not to be at all surprised in meeting sometimes with very difficult cases, when we consider the vast number of fœtuses animals occasionally bring forth at one birth, when I mention that there have been instances of the sow bringing as many as twenty-three, the ewe seven, and cow four (and nine at three births); but I never heard of the mare bringing more than two. In the sow the numbers are not of much consequence, as she appears to pass them with as great ease as if they were fewer in number; but in other animals it is, frequently, when called in to attend on them in parturiency, a source of vast anxiety and labour. Of course, when there are several fœtuses, they must, in most instances, be necessarily proportionately small; but this is not an invariable rule, as some are large, or almost of the usual size, whilst others prove very small. To shew the method that should be adopted where there are a multiplicity of legs appearing, I think I cannot do better than relate a case that occurred to Mr. G. Canu (THE VETERINARIAN, vol. xi, p. 57), as it is the plan I pursue in my own practice, and one that I should recommend. His patient was a cow, and six legs and head were presented—the head and fore extremities in one case, and the four extremities in the other. He says, "it was difficult for some time to

distinguish the fore legs from the hind ones, and those of one fœtus from what belonged to the other. The head had only half protruded, and the fore legs of the fœtus that had the best position were not farther advanced than those of the second. The efforts of the mother operated equally on both of them, and the labour was making progress.

That I might not make any mistake afterwards, I attached threads of different colours to the legs of the one and the other. With one hand I endeavoured to force back the fœtus which presented all four legs, while with the other hand I attempted to draw forward the one whose two fore legs alone were to be seen; but I was unable to accomplish my purpose. When I pushed back the foremost one, the hinder one presented itself, and *vice versâ*. I thought, however, that I could take advantage of this; and placing cords around the legs of the one that was in a natural position, and giving them to two assistants, and seizing the one whose four legs presented, grasping the anterior legs in one hand and the posterior ones in the other, and pushing them back with considerable force, while my assistant endeavoured to pull the other forward, and the cow fortunately helping us at the moment with a more than usually violent effort, our object was accomplished. When the chest of the one that was drawn forward reached the brim of the pelvis, I was compelled to quit my hold of the other, and withdraw my hand; but I had forced the other sufficiently back, and there was room for the first to be expelled.

The four legs of the other immediately presented themselves again. I fixed two cords around the hind legs, and gave them to my assistants. I seized the fore legs above the knee, and bent them, and pushed them backward, while my assistants pulled at the hind legs: the croup presented itself, and the labour was presently accomplished. The first calf was the smallest, and died the same day: the second was reared. The mother was kept in the stable for a few days, and then dismissed.

I once recollect being sent for, a distance of six miles off, to assist a cow to calve. It was a breech presentation; but before I arrived a person in the neighbourhood, expert in these matters, had extracted the calf, and was gone into the house to get some refreshment, where I also went without seeing the cow. Soon after, he left, but I was desired, ere I returned, to see the cow, and on going into the cow-house I observed that she looked very full, and strained more violently than appeared requisite for expelling the placenta. I therefore suspected that there was another calf in the uterus, and, on placing my fist to the side, I easily detected it. It was a head presentation, without the feet; but the latter I soon got into their place, and she speedily calved.

This case should be a warning to us to ascertain, ere we leave, whether there is another calf in the uterus, since we may be laughed at by others that might be called in after us, or we might be miles off in a short time, and the cow at last lost for want of assistance.

Cross Birth; Back presenting.

What is called a "cross birth" is where the back of the fœtus is presented without the head or any of the legs making their appearance. I am inclined to think that it does not often take place, as it has but rarely occurred in my practice; but whenever it does, we must ascertain whether the head and fore legs, or the hind parts and extremities can be laid hold of best, so as to extract the fœtus with the greatest ease, and with the least danger to the parent. Whichever way we decide upon, we must fasten cords to the feet, &c. for our assistants to pull at, while we turn and force back the opposite extremities with one or both of our hands, and then extract as in ordinary cases.

It was stated in *Bell's Life*, April 2, 1843, that the celebrated mare, the Queen of Trumps, the property of the Hon. E. M. L. Mostyn, and winner of the Oaks and St. Leger, died at York, on the previous 28th of March, in giving birth to a filly foal, in consequence of there being a cross birth; and it was said, that no human aid could have saved her!

LETTER TO THE EDITORS,

ON PLEURO-PNEUMONIA AMONG CATTLE — VETERINARY OBSTETRICY—UNLICENSED PRACTITIONERS, &c.

From James H. Shenton.

Gentlemen,—In reading the last number of your interesting and invaluable Journal, I was much interested in the account of cases, and remarks on them, by Mr. Cartwright, of Whitchurch. I have myself witnessed, in the course of my practice, a great number of similar cases, arising either from the ignorance of the owners, the officiousness of servants or neighbours, or that of unskilful drunken empirics. I have not only often seen the direful and withering effects of miserable ignorance in obstetric cases, but in many other cases of various diseases: scarcely a day passes but I see less or

more of the deadening influence of quackery. I could enumerate a great number of cases of various diseases that have had a fatal termination, that might have been otherwise, or been brought round and cured, if they had been attended to by skilful and upright practitioners: I say that I could recite a great number of these cases, but it would be useless to do so. Every regular practitioner has seen enough himself, to his sorrow, especially of country pretenders; indeed, since the commencement of that direful disease, pleuro-pneumonia, an innumerable host of empirics have sprung up from all ranks and grades of persons. There are in this county several farmers whom I know, who pretend to have found out never-failing cures for that mysterious and fatal disease. There is one farmer not far hence who pretends that he has saved a great number of his own stock by administering a quantity of castor oil, treacle, and urine. He has sounded it through the country far and wide; and some persons, owners of stock, have been fools enough to believe him, and have consequently lost a great many cows. One poor fellow I know lost twelve or thirteen in a short time, and never tried any thing else but the above-mentioned rubbish, being fully persuaded that if that could not perform a cure nothing else could. There is another, who has received from a distant friend a recipe for the above disease, which he says is, and has been, a never-failing remedy either as a preventive or cure.

This fellow actually thought so much of his invaluable recipe, that he sent it to the printer and got a great number of copies of it printed, and sent them to almost all the farmers far and near. I saw one of them, but unfortunately I have forgotten some of the ingredients of it: the principal ones were—one ounce of Epsom salts, half an ounce of sulphur, one ounce of turmeric, one gill of linseed oil, and two or three other strange things, which I now forget. What could such a compound do for a cow, when it is scarcely strong enough for a human being if the oil was omitted?—and if enough, it is not suited to the disease which it is meant to cure.

There are also a great number of ignorant and drunken itinerant quacks going about the country, pretending to cure all before them on the principle of "no cure no pay;" and, no matter what ails a cow, they declare it to be the *new* disease (pleuro-pneumonia), if it is only a slight case of cold. They find a great many willing dupes among the country farmers, and if they happen by mere chance (for it is nothing else) to cure a beast, they charge a good sum, and that makes up for all they lose at other times. They do occasionally perform a cure on some petty case of cold, which they will call the disease; or rather, I should say, the owner generally cures the complaint by kind nursing during the time the beast is undergoing the pretended curative process of the quack, and then

the quack blazes it through the country that he has cured so and so, belonging to such a person; at the same time the complaint has not been any thing more than a slight cold, which by being kindly nursed, and perhaps kept on mashes for a day or two, recovers to the great praise of the lying, ignorant, drunken empiric; and who by this means gets a good deal of practice, to the great injury of respectable and skilful practitioners, as well as to the great loss of the farmers or owners of the stock, senseless enough to employ them. It is my firm opinion that three-fourths of all the animals that have died lately have been lost through the miserable quackery of owners and self-styled doctors. I will just relate a case that happened lately, which was brought to the very verge of death by the most cruel and wanton maltreatment I ever met with, arising from the interference of the would-be-knowing owner, and some miserably ignorant fellow whom the owner subsequently called in after he had tried himself, and the animal had been by the two brought to the verge of death.

On the 3d of October last, about four o'clock in the afternoon, I was called upon to attend a cow belonging to a person at Salford, who, I had heard, was a knowing self-conceited man, but whom had never seen before. I went into his yard, and was shewn the sick cow. She was in a large loose box, with folding doors in front. To my great surprise I found the place so full of hot steam that I could not see my poor patient at all, but I could hear her plaintive moan. I then opened the other door, so as to admit some pure air, and in a few minutes the steam had partially subsided, and I went up to the poor suffering animal. I found her lying down on her right side, with her head and neck extended at full length on the floor, and she was moaning dreadfully. I caused her to rise, which she did with much difficulty, and then I let her stand still for a minute or two to compose herself before I began to examine her; and when I did so, I found the extremities cold and rigid—the back arched—the hair erect—the eyes dull and sunken—the mucous membranes very pale—the bowels completely constipated—pulse almost imperceptible—breathing very low—great nervous irritability, and when the stomach was pressed upon she evinced great signs of pain. I also found that a large quantity of ung. lyttæ had been applied on each side of the throat from the jaw to the chest.

The owner now came in, and inquired what I thought of the case. I replied that I could not form an opinion of it—I must first know the previous history of the case from its commencement, which he very willingly gave me. I will recite it in his own words as nearly as I can.

He had purchased this cow at the annual fair held at Man-

chester on the 1st of October, which was the Wednesday previous. She had calved on the Sunday before, and had stood in the open fair, on a damp and wet ground, all day; and when he brought her home at night, he thought she looked dull, and found that she would not eat any kind of food; so he very wisely imagined that she had got a slight cold, by having so recently calved, and standing in the cold damp fair all day; and being his own doctor, generally, he thought he would give her a little opening medicine, and see how she was in the morning; so accordingly he prepared and administered the following curious but abominable compound of rubbish:—One pound of Epsom salts, a quarter of pound of sulphur, two ounces of nitrate of potash, one pound of hogs' lard, one pound of treacle, and about one pound of rancid bacon, boiled in oatmeal gruel, and all mixed together, and given to the cow at one dose. On the next morning she was no better—the medicine had not operated—there was no appetite, and he imagined it must be some new disease, so he bled her to the amount of seven quarts, and repeated the dose beforementioned; gave her an injection or two of soap and water, and filled the place with steam, which he could readily effect by an apparatus he had in the wall, and that was connected with a boiler, and by shutting the folding doors already spoken of, and putting on the steam, he could fill the box with it in a few minutes, with which, he said, he would sweat the disease out of the beast.

At night she appeared no better—the bowels had not been acted upon—she would not take any thing in the form of food or drink, and therefore he sent for a person in the neighbourhood who styled himself a veterinary surgeon.

In a short time this would-be veterinarian arrived, examined the cow, and declared that it was a bad case. He then, with the concurrence of the owner, abstracted full six quarts more blood, making thirteen quarts of blood abstracted in less than twelve hours; repeated a similar dose to the one beforementioned; applied the blistering ointment as mentioned above, and ordered injections frequently. The next morning the patient was no better, but worse, being duller, weaker, and yet no passage. In the afternoon the owner sent for me, and when I arrived I found her, as before stated, as low as she possibly could be brought; all the natural organs seemed inactive and dormant, and the poor suffering animal was almost at death's door.

My prognosis, of course, was unfavourable; for what other statement could I give under the beforementioned circumstances, but that the cow had to all appearance been labouring under a slight cold that had brought on indigestion; and that the unscientific and cold compound of unsuitable medicine had fallen into the rumen

or first stomach, and there lay dormant; and that the after doses had also fallen into the same stomach (which is, at best, a rather inert and inactive organ until stimulated to exertion by proper medicinal agents), and then the great quantity of blood that had been drawn from her in so short a time had rendered the stomach and digestive organs still more inactive, and, together with the weak state of the cow at the time of being taken ill, had caused complete indigestion and constipation; consequently the large quantity of unwholesome, unnatural, inert, and abominable mass of ignorantly prepared rubbish lay dormant and dead, as it were, in the rumen, and caused great sickness; and all these causes working together had brought the cow so low that it would be rather difficult to rouse the natural powers and organs to exertion.

But I said that I would do my best for the cow if he (the owner) would be guided entirely by my directions and advice: so he said he would, and I immediately prescribed a strong stimulant, combined with a tonic and carminative. I ordered the cow to be well rubbed with wisps of straw all over, in order to assist the circulation; and in about an hour after I caused the cow to walk, as well as she could, into the yard, to exercise her limbs a little, and cause the stimulant, &c. that I had given her to act on the coats of the stomach. When she had walked about ten minutes she voided a great quantity of liquid fæces, which had a most offensive odour. In a short time I ordered her into a loose box again, and to be covered with some warm clothing, to have a small quantity of ale gruel frequently administered to her, to warm her and stimulate the stomach. I also ordered her to have a little fresh air, for the door when shut rendered the place almost air-tight; accordingly a few bricks were knocked out of the wall to make a temporary ventilation. The next morning I saw her, and she was very ill; but the pulse was better—the bowels very open—the fæces quite liquid—and the poor animal was suffering greatly from the excessive doses of nitr. potass. combined with the action of the pulv. cantharidum that was in the blistering ointment that had been applied to the throat so foolishly, which had affected the circulation through the absorbent glands, and was now acting on the urinary organs. It was quite pitiful to see the great pain she was in, continually trying to void her urine, but could not. I therefore directed the throat to be well washed with soap and water, and all the ointment to be got off as soon as possible, and when the part was dry to be well rubbed with camphorated oil. I also prescribed a slight ammoniacal stimulant over the kidneys, in order to draw the pain away as soon as possible, and ordered a dose of stimulating sudorific and sedative medicine to be given in warm ale, and to be repeated

every twelve hours, the cow to have a little malt mash if she would eat it, and if she would not, she must have some good ale gruel administered frequently to her; for if she was not kept up with something stimulating and nourishing, she would die of mere exhaustion, arising from superpurgation. Of all the cases of purgation that I ever witnessed, this was the worst; the fæces were not like common excrement, they were more like boiled flesh: it looked like, as it lay there, a lot of the bottoms of a large cook-shop stew-pan with the bones picked out; it was a complete mass of skins, and sometimes there would come along with it pieces as large as an egg, round, compact, transparent, and of a yellowish white colour. All this I attributed to the enormous quantity of saline and sulphurous matter that was working all at once; for she had had three or four doses similar to the one before described, and they all were working at once; and it is my opinion, that if she had not had a constitution as hard as iron, she would have been dead before the time I was called in to see her. In order to remedy the pain and other consequences arising from this over-purgation, I increased my doses of sedatives and carminatives. In a day or two my patient improved a little; the fæces gradually assumed their natural colour and consistency; the appetite improved; rumination commenced; and the secretion of milk increased every day a small quantity. I ordered the cow to have a little stewed linseed put into her malt mash twice a-day, and to have some very good and sweet meadow hay got for her, and to have a small dose of tonic and stomachic medicine twice a-day for a short time. She gradually recovered her wonted health and flesh, and is now a very good milker, and in good condition.

In conclusion, Messrs. Editors, I beg to offer a few observations on your editorial remarks in the last Number of your invaluable Journal on the employment of unlicensed practitioners: far be it from me to vindicate ignorant quackery in any shape or form; but, in my humble opinion, you go rather too far in your restrictions on practitioners: if I mistake not, you say, "neither give your sanction to any uncertificated practitioner of veterinary medicine or farriery."

Now, I think you really go rather too far here; for it is my opinion that there many honest, honourable, skilful, zealous, and truly scientific practitioners of veterinary medicine in various parts of the country who never did nor ever will possess a diploma, who are debarred from becoming regularly certificated members of the profession by circumstances not entirely under their own controul: some by peculiar family matters, others by pecuniary circumstances; and some have been in practice a very long time indeed

before any one thought it necessary to study in London, at a vast expense, on purpose to gain a certificate or licence to practise their profession. Indeed, I know several, in the limited compass of my professional acquaintance, who are really and truly skilful, scientific men; men who, by a long-established, arduous, and zealous practice of their profession, have gained for themselves a reputation that will live longer than themselves. There is one now existing in my mind's eye, who does not live far from me, and who has been in full practice about thirty years: he has more horse practice than any man in Lancashire, and which he performs with credit and honour to himself, and with full satisfaction to his employers; and I candidly ask you, Would you put such men as these down? Would you persuade the owners of stock not to employ such men as these?—men who are worthy of being cited as examples to their more fortunate brother practitioners who are in possession of certificates? I say, it would not be fair or right to put, or try to put, such practitioners down; but I humbly hope you will not mistake me or my motive in just simply trying to vindicate sterling worth. I do it not in vindication of quackery; but I say, instead of advising our employers not to patronise or employ any practitioner but who is in possession of a diploma—I say, let farmers and others, before they employ any veterinarian, first inquire into the professional and moral character of individuals, and if their names and characters will bear strict scrutiny, let them be employed; but if any pretender should offer his veterinary medical services, no matter how fine a tongue he may have, if his practical, professional, and moral character will not bear the strictest examination, I should brand him as "a rogue and a vagabond." I allow, that truly worthy uncertificated practitioners are very rare; but I know there are some few; and I again say, it would not be just or right to endeavour to injure them by prohibiting them from practising their profession, *so long as they act uprightly, and practise as honest and skilful veterinarians.*

Hoping you will find a place for these few imperfect observations, and begging pardon for trespassing so far on your space, allow me to remain, &c.

Irlams, Oth Light, Pendleton, near Manchester,
12 Nov. 1845.

ON PROTECTIVE VETERINARY SOCIETIES AND ASSOCIATIONS — THE CHARTER — THE COUNCIL, &c.

By THOS. MAYER, *senior*, *M.R.C.V.S.*

To the Editors.

Messrs. Editors,—In THE VETERINARIAN of last September I observed a plan for the establishment of a Protective Veterinary Society, by Mr. J. Anderson, of Leicester, for the purpose of instituting legal proceedings against irregular practitioners, who too often groundlessly, if not maliciously, assail the professional characters of the regularly educated veterinary surgeon.

If such a society could be organised with any certain prospect of securing the object intended, with ultimate benefit and advantage to the parties aggrieved, I, for one, should hail its establishment with pleasure.

But I feel assured no such benefits would accrue to the profession; for no sooner would an action be commenced against the offending parties, than the public sympathies would be enlisted on the charlatan's side as being the weakest party, and, consequently, considered by them as the aggrieved and oppressed party; therefore, the verdict of juries in such cases would oftener go against the veterinary surgeon than for him; and even allowing that you obtained a favourable verdict, the really aggrieved party who brought the action would damn himself in his own neighbourhood, and proportionably advance the fortunes of the quack.

In asserting what I have, the data are taken from facts gleaned from prosecutions that have been conducted by the Apothecaries' Company against irregular practitioners in the medical profession. It was seldom they ever obtained a verdict in their favour, and if they did, it was attended by no advantage to the injured party.

I recollect a case in point in this district, where a young man was practising as an unqualified practitioner. An action was commenced against him; and what was the result? He being a steady, industrious young fellow, it brought him prominently before the public, and consequently made him generally known. It enlisted the sympathies of the neighbourhood where he dwelt; it compelled him to carry on his practice under his assistant's name till he had regularly qualified himself by going up to London; and it thereby made his fortune in the same proportion as it depressed his opponent's, the latter (although a clever scientific man) dying in comparative poverty.

Such would be the result, under similar circumstances, to the

veteterinary surgeon; therefore it is better to leave our cause in the hands of a discriminating public, who, although misled too often at the outset by first impressions, will right themselves in the end, and do ample justice to the aggrieved party. In fact, it is better and wiser so to live and demean ourselves privately and professionally as to live ill fame out.

Still I agree with Mr. Anderson, that we ought to unite to carry out self-protection to a certain extent; and the plan I would suggest would be to form the veterinary surgeons of every county into county associations. Let every association elect annually their own president; let them meet once a year at some central town in their respective counties; let their duties consist in watching over the veterinary interest, not only of their own district, but of the whole body politic; seeing to the correct registration of all regularly graduated veterinary surgeons in that county; taking correct accounts of the deaths and changes of residence as they occur of every individual member in their county; taking a general annual review of every thing connected with veterinary science, and entering into such an annual amount of subscription as will defray all necessary expenses, particularly that of advertising once a year in their provincial newspapers the names of every person in that particular county qualified to practise the veterinary art; and also, if necessary, to pay the expenses of any member they might depute as their representative at the annual meeting of veterinary surgeons, held in every May at the Freemasons' Tavern, for the purpose of electing six individuals annually on the Council of the Royal College of Veterinary Surgeons (that is, when none of their association are disposed to go to town at their own expense).

The president for the time being should keep minutes of all the association's proceedings, see to the carrying out its views, and keep up a regular correspondence with the Council through the medium of its secretary whenever circumstances call for such communications.

Thus there would be a healthy, vigorous circulation kept up betwixt the council and their constituents—betwixt the centre and extremities—which could not fail to be attended with the most beneficial consequences towards promoting the best interests of our College, and preserving it in prime working order.

I am extremely sorry that so many of my professional brethren should have been disappointed with the Charter, because it did not afford that protection from quackery which many of them anticipated; but if government refused such protection to the medical profession, it is not likely they would grant it to us. All I can say is, the Veterinary Committee established for the obtainment of the Charter pressed it upon the notice of government, but without effect.

The Charter, however, forms a fulcrum upon which we can place our lever, so as to obtain an Act not only affording us the same exemptions and privileges that other professional bodies enjoy, but likewise enabling us by a summary process before any local magistrate to levy a fine of not less than £5, and not more than £10, against every individual who assumes the title of veterinary surgeon without a proper qualification. Such an extent of protection as the above the government, I think, would not refuse; but before such an object can be gone into or accomplished, we must get settled amongst ourselves.

Having now flung my mite into the general treasury, I leave others to do the same, and for the profession to carry out their views in such way as they think best.

I remain, gentlemen, &c.

Newcastle-under-Lyne,
Dec. 9, 1845.

ON BROKEN WIND.

By THOS. WALTON MAYER, *M.R.C.V.S.*

To the Editors of "The Veterinarian."

Gentlemen,—IN the November number of your Journal there appeared a letter from Mr. James Fisher, containing some appropriate remarks on the cure of broken wind, represented to have taken place under the able treatment of Professor Dick, of Edinburgh.

Professor Dick, I perceive, most properly refuses to give the profession any information on the subject, reserving the whole of his learning for the benefit of his pupils. It is, therefore, open for the profession to discuss the matter as they think proper, and it is with the view of promoting this discussion that I am induced to send you these few observations.

If I could really bring myself to believe the accuracy of Mr. Dick's statement, that both himself and his pupils so understood the principles and practice by which they could cure broken wind, that they could and had cured it, I should certainly advise every veterinary surgeon to become a pupil of Mr. Dick's. The obtainment of such an important secret is well worth the outlay of a few pounds. Unfortunately, however, I have received my education in a different establishment, have adopted certain notions there received,

and, my sentiments having been confirmed by practice, I am led to unite myself in opinion with the authors quoted by Mr. Fisher.

Broken wind is generally believed to be a symptom of disorganization of the lungs, whereby they are unable to perform their proper functions with freedom or regularity. In some instances this change is produced suddenly from violence; in others it is the result of disease. But from whatever cause it may originate, it is perfectly clear to those who have examined the lungs of broken-winded horses, that it is only possible for the art of man to alleviate, not to cure.

It must, however, be remembered that the word *broken wind* is *sometimes misused.* By some it does not always denote that chronic state of the lungs of which it is symptomatic in the cases abovementioned; we may have the appearance of broken wind without any alteration in the structure of the lung. At the time of the riots in 1842, when the yeomanry were quartered in this town, and their horses put into close stables, where they stood together in such numbers that they could not lie down, and the effluvia was almost overpowering, numbers were taken suddenly ill, and their breathing, to all appearance, that of a broken-winded animal; yet these cases all yielded to treatment, and no ill effects were afterwards observed. I have seen cases of influenza, in which the breathing was similar, and this also removed with the disease; but in none of these cases do I think the term broken wind could be applied. *Broken wind is not a disease,* but it is the result of disease, and when once established cannot be removed.

I do not know by whom the term broken wind was first introduced; but it certainly is not mentioned in the earliest veterinary authors. They put modern professors to the blush, and describe things under, at least, more appropriate names. As it will not only amuse your readers, and afford some little information to the learned and unlearned, I have taken the liberty of transcribing the opinion of Blundeville on this subject: it is dated 1566.

Of the Fritized, Broken, and Rotten Lungs.

"This proceeds, as *Absirtus and Theomnestus* saith, either of an extreme cough, or of vehement running or leaping, or of over greedy drinking after great thirst; for the lungs be inclosed in a very thin film or skin, and therefore very easy to be broken, which, if it be not cured in time, doth grow to appostumation and to corruption, oppressing all the lungs, which of the old authors is called *vomica* and *suppuratio.* But *Theomnestus* saith, that *broken lungs* and rotten lungs be two diverse diseases, and have diverse signs and diverse cures. The signs of *broken lungs* be these. The

horse draweth his wind short, and by little at once; he will turn his head often toward the place grieved, and groaneth in his breathing; he is afraid to cough, and yet cougheth as though he had eaten small bones. The same Theomnestus healed a friend's horse of his, whose lungs were fretized, or rather broken, as he saith, by continual eating of salt, with the manner of cure here following. Let the horse have quiet and rest, and then let him blood in the haunches, where the veins appear most; and give him to drink, in the space of seven days, barley, or rather oats sodden in goat's milk, or if you can get no milk, boil in water, and put therein some thick collops of lard and of deer's suet, and let him drink that; and let his common drink in winter season be the decoction of wheatmeal, and in summer time the decoction of barley, and this, as he saith, will bind his lungs again together.

"*Vegetius* utterly disalloweth letting of blood in any such disease as this is, and also all manner of sharp medicines, for fear of provoking the cough, by means whereof the broken places can never heal perfectly. And, therefore, neither his medicines nor meat should be harsh, but smooth, gentle, and cooling. The best medicine that may be given him at all times is this* :—"Take of fengreke and of lynsede, of ech half a pounde; of gum dragant, of masticke, of mirre, of suger, and of fytch floure, of eche one ounce—let all these things be beaten into fine powder, and then infused one whole night in a sufficient quantity of warm water, and the next day give him a quart of this, lukewarm, putting thereunto two or three ounces of oil of roses, continuing so to do many days togither; and if the disease be new, this will heal him. Yea, and it will ease him very much though the disease be old, which then is thought incurable. And in winter season, so long as he standeth in the stable, let him drink no cold water, and let his meat be clean without dust; but in summer season it were best to let him run to grass. *For so long as he eateth grass, a man shall scarcely perceive this disease! Thus much of broken lungs.*"

Whatever opinion we may form with regard to the writings of our fathers in veterinary science—however much we may deplore their ignorance with regard to disease and the methods of cure, yet, in this instance, we must give them credit for an accurate knowledge of the site of the disease which we call broken wind—no such misnomer occurs in the pages of Blundeville. He carefully describes cough—the inward and wet cough—the dry cough—rotten lungs—shortness of breath—pursike consumption—broken lung, but no broken wind. His idea of the origin of the disease, viz. that it consisted in a rupture of some portion of the lungs, is

* I have given this as written by Blundeville.

clear: that he believed it to be distinct disease is also equally certain. In the chapter on Shortness of Breath, which he states is called by the old writers orthopnœa, having given what he considers to be the causes of the disease, he adds, "which, so long as there is nothing broken, maye in the beginning be easilye holpen." Again, in the chapter on the Pursicke, called vulsus, he says, "This is a shortnesse of breath; and the horse that is so diseased, I thinke, differeth not much from him that hath broken lungs."

But enough of this. I must leave your readers to contrast the opinions expressed in 1566 with the opinions of others in 1846. I trust I have shewn enough to recommend them to the favourable consideration of the profession, and to draw from them their opinions on the subject.

I remain, Gentlemen, &c.

Newcastle, Dec. 12.

CONTRIBUTIONS TO ZOOLOGICAL PATHOLOGY.

By JAMES MERCER, *M.D., Fellow of the Royal College of Surgeons, and Lecturer on Anatomy, &c., Edinburgh.*

PART X.—*On Entozoal, or Worm Aneurism.*

[Continued from vol. xviii, page 281.]

THE occurrence of aneurismal dilatations in the horse is considered to be a rare circumstance by the generality of veterinarians; "so rare, indeed," says Mr. Percivall, "that it never has, as I know of, become an object of veterinary practice*." This, indeed, is perfectly true of aneurisms of the larger arterial branches of the extremities, or in the other parts of the body without the large cavities, and that are deemed within the reach of surgical interference; but that similar pathological conditions do take place in the vessels within the cavities of the trunk very frequently, and are productive of the most fatal consequences, is a matter which the light of comparative anatomical investigation is placing beyond the shadow of a doubt—nay, is proving to be a frequent occurrence.

It would appear that the annals of British veterinary medicine afford but slight information on the pathology of the bloodvessels; and in this respect our continental brethren considerably exceed us.

* Hippopathology, vol. ii, p. 168.

Attention, however, needs only to be directed to the subject, and there can be little doubt that its high importance in practice, and the many interesting facts that are connected with it, will speedily cause it to form an object of interest.

Aneurisms are admitted to be of two kinds in their pathological conditions,—true and false. True aneurism consisting of a morbid change in one or other of the coats of the vessel, followed by a general dilatation of these, of a partial dilatation, or of solution of continuity in some of its tunics, with distention of the others, and with or without the deposition of fibrine within this dilatation; and false aneurism, where a solution of continuity occurs in the structures of all the coats of the vessel, followed by an extravasation of its blood into the surrounding tissues. Such are the usual conditions that exist in the human individual; but in the horse, independent of the simple, true, or false, aneurism existing, there also occurs in the tumours the presence, in the majority of cases, of *hematoic entozoa* or *worms*, which modify the nature, course, and termination of these pathological changes in a very important degree. It is to the latter form of disease that the present remarks refer, and to which the term worm-aneurism has been applied by Rayer, an accurate account of which will be found in his paper, *Recherches Critiques et Nouvelles Observations sur l'Aneurysme Vermineux*, in the Archives de Méd. Comparée, No. 1, 1842.

An interesting example of this worm-aneurism came under my notice a short time ago, attended with fatal consequences.

In August 1845, a friend purchased a very handsome bay horse, for a hunter, seven years off, and fifteen hands high. He had been in the possession of his former owner ever since he left his breeder's hands at the age of four years, and during this period he had been regularly hunted every season to a moderate extent, and never had been off work for any time in consequence of disease. When recently sold, he appeared to be in excellent condition; was parted with "for no fault," and the usual certificate of warranty was given. On coming into the possession of the last purchaser, the work into which he was put scarcely exceeded that of simple exercise; but one day, after a gentle gallop, he was found to be much more done up and exhausted than usual, and on being brought to the stable he could scarcely stand upon his limbs, which tottered under him: he was restless, and staggered from side to side; there was heaving in his flanks; his coat was bedewed with perspiration; and he hung upon his halter, until in a short time he dropped on his quarters, and gradually sunk before professional aid could be obtained.

Ten hours after death the carcass was opened, and this was found to have resulted from the bursting of an aneurismal tumour

of the posterior aorta, situated around the origin of the cœliac axis, into the abdominal cavity. The interior of this cavity was almost completely filled with coagulated blood; and on searching carefully for the aperture in the aorta whence the discharge had come, two entozoa were found entangled in the coagulum, between two folds of the jejunum at the root of the mesentery. The aorta was then cut through at the aortic aperture in the diaphragm, and the trunk carefully separated as far as its bifurcation into its iliac branches: the whole was removed for further dissection. The following were its pathological conditions:—

The tumour was of a large size, occupying the entire lower half of the periphery of the aorta. It was situated around the roots of the cœliac axis, extending anteriorly between the crura of the diaphragm, and posteriorly involving the origin of the anterior mesenteric artery; and along its right side, between the roots of the hepatic and anterior mesenteric arteries, an oblique lacerated fissure was found, penetrating through the parietes of the tumour, but having its space almost entirely filled up by the protrusion of two entozoa.

The interior of the tumour contained an irregular clot of fibrin arranged in layers; and, on separation of these, seven entozoa were found between them. These worms were not embedded in any cysts with distinct walls, but were simply lying in small irregular cavities between the layers, and between which cysts and the general cavity of the tumour there existed a communication in only one instance. In the margin of the fibrinous clot, close to the aperture through the coats of the artery, another space of a larger size was observed. This space was still partly occupied by the bodies of those entozoa that were engaged in the aperture, and it was evident that this space between the layers of the fibrin had also been formerly entirely occupied by them. These entozoa were engaged in the aperture irregularly; in one the head was entirely protruded, and the other had its body doubled up.

The coats of the artery that entered into the formation of the tumour were not increased in thickness, and towards the aperture they became gradually thinned. Here and there the inner surface of the tumour was studded with small tubercular elevations, in the centre of the larger of which the rudimentary and embryonic forms of the entozoa were found; and on the margin of a fissure one of a considerable size was found, embedded on the inner surface of the middle coat of the artery, and which, from the change induced on the elasticity of the artery by its presence, had evidently been the immediate cause of the sudden rupture of all its coats.

The entozoa that were found in the abdominal cavity, as also

those engaged in the fissure, and between the layers of the fibrinous deposits, were the *strongylus armatus minor—Rudolphi*. Those that were found in the clot of blood, at the root of the mesentery, were the largest in size, and nearly corresponded to the size of the *strongylus armatus major*. Those in the fibrinous deposits within the tumour were about eight lines in length, and those engaged in the aperture somewhat larger. In his description of the strongylus armatis major, Rudolphi says, "*Strongylus intestinalis adultus* duos circiter pollicis longus, fuscus, vasculis genitalibus albis translucentibus, hinc variegatus; rectus ut fere strictus;" and of the "*strongylus minor*, aliquot lineas ad pollicem usque longi, candidissimi, capite tamen (a sanguine hausto) ruberrimo, ab intestinalibus specie non differunt, sed cum his nondum adultis et decoloribus ex asse conveniunt*." Those observed in this case, though of a larger size than those described by Rudolphi, nevertheless, in all other respects, they were perfectly analogous.

Rayer, as already mentioned, has published a valuable paper on this form of aneurism, "Recherches Critiques, et nouvelles Observations sur l'Aneurysme Vermineux et sur la Strongylus Armatus Minor," in the *Archives de Médecine Comparée*, No. 1, 1842, an abstract of which is contained in the valuable and useful publication of the Ray Society for the present year:—

"According to his investigations, the worm-aneurism almost always develops itself, in solidungulous animals, in the arteria mesenterica anterior, and, generally, in adult and old individuals. He found the cavities of the aneurismal dilatations sometimes narrowed, or quite filled up, by a growth of fibrous layers: in the smaller depositions of these layers only few *strongyli* were present, but in those of larger size they were found in greater numbers; they were often also met with in the ossified walls of the aneurism. Rayer has *never seen the internal arterial coat of such worm-aneurisms perforated or ulcerated: the worms remain between the fibrous deposition, but never between the coats of the artery.* Worm-aneurisms, it is believed, *never burst*, as they are always accompanied by hypertrophy of the arterial walls. Rayer however, in opposition to this opinion, asserts that the *strongyli pierce the walls of the arteries*, and so get into the cavities. The most of the strongyli are found in the fibrous deposits, and project sometimes with the head, and sometimes with the tail; only a few lie free in the aneurismal cavities. Gruby relates a case of aneurism of the cœliac axis in the horse, in the cavity of which fibrous deposits and entozoa, resembling *ascarides*, were found. They

* Rudolphi Entozoorum, sive Verm, Intest., vol. ii, part 1, pp. 206, 207.

were, however, nothing else than individuals of the *strongylus armatus minor*."

In some points the case above related differs from those that have been observed by Rayer. In the first place, he has never seen the worms between the coats of the artery. In one case, the embryonic forms were found embedded in the middle coat of the vessel and covered by its internal tunic; the greater proportion, however, of the worms were found between the fibrinous layers, though they seemed to have been discharged into the cavity of the tumour from the cysts in the tunics in which they had been developed. In the second place, the parietes of the tumour were not generally hypertrophied; on the contrary, they were extremely thin towards those points whence arose the large arterial branches, and at the point of rupture the entire middle coat had been removed. It would be improper, however, to deduce any generalizations from an isolated case; and, as the subject is in itself extremely interesting, it is to be hoped that the attention of the veterinary pathologist will be directed to its further investigation.

A CASE OF HEPATIRRHŒA, WITH OBSERVATIONS.

By Thos. Wright, *M.R.C.V.S., Brighton.*

On the evening of the 13th day of November last, I was called in great haste to attend a fine brown horse in the service of the Hon. J. Kennedy, sixteen years old, very fat, and about sixteen hands and a half high. The symptoms presented on my arrival were as follow:—respiration sometimes deep and heavy, while at others scarcely to be heard—nostrils distended—membranes almost white, except the conjunctival, which was very yellow—pulse almost imperceptible at the jaw, but the heart beating 60 in a minute, with nothing very peculiar to be observed in it—ears alternately hot and cold—extremities warm and comfortable—very restless—abdomen much distended, especially on the near side. From these symptoms it was pretty evident that there was internal hemorrhage, but its precise nature I could not exactly understand. I should have immediately pronounced it from the liver, if the enlargement had been on the off instead of on the near side.

Having no confidence in any of the styptic agents we can administer in cases of this description, and no hopes whatever of my patient, I thought if we could procure quietude it would be the

most essential point gained. I, therefore, gave tinct. opii and spts. nit. æth. in rather considerable doses, with strict injunctions that he should be left perfectly quiet, to be warmly clothed, and have his legs bandaged. This treatment was continued for three days, the patient to all appearance about the same as at first, with the exception of a slight tinge of pink again being visible in the membranes, and perfect freedom from pain or uneasiness. On the fourth day the pulse at the jaw could be easily counted, being 55, but still of a very weak character: he ate some carrot, and drank freely of gruel. Thus he continued until the evening of the fifth day, when a relapse took place, and he died on the morning of the sixth day from the time I first attended him.

During my attendance, I learned from the coachman, a very intelligent man, who had driven him for more than twelve years, that about seven years ago he was not expected to recover from an attack similar in all appearance to this; and that about four years since he experienced another attack, though much milder than the first. He frequently of late had been unwell, but not bad enough to require medical assistance. With these assurances, combined with the nature of the symptoms now presented, I hesitated not to give my opinion that the liver was the seat of the present ailment, and the post-mortem appearances proved my opinion to be correct; for upon opening the abdomen, four hours after death, a quantity of black serous blood escaped through an incision made in the linea alba, and quite two pailfuls and a half more were taken from the abdomen in which the intestines might be said to float. On removing these viscera, so as to get a view of the liver *in situ*, it had a most beautiful appearance: a ragged surface lay exposed full six inches square, the peritoneal and capsular coverings being drawn completely on one side and folded up. The liver appeared of immense magnitude, and, being closely adherent to the diaphragm, I had the two removed together, and taken to my own home. Nothing else could be discovered of the slightest importance affecting any other part. Upon farther inspection of the liver, I found the left lobe much enlarged by an accumulation of apparently semi-organized coagulum, which was contained in a perfect sac formed by the natural coverings of the liver. This coagulated substance had the appearance of, as nearly as I can describe, a sponge soaked in black serosity, which was continually oozing from its surface. The right lobe was still more enlarged than the left: it exhibited a rupture in its tunics from eight to nine inches in length, taking the precise direction of its outer circumferent margin. Several broad patches of adhesion had taken place between the liver and diaphragm, but no trace could be found of a positive rupture ever having taken place before, at least not of the nature of the one just described.

This case seems materially to differ from those which have preceded it, on record, in the remaining portion of the liver being to all appearance in a perfectly sound condition. There was nothing like broken down structure to be observed. The blood, which had from time to time become effused under the tunics of the liver, being unable to escape, had had its most fluid parts removed by absorption, its more solid portion remaining; this, by accumulation, had caused pressure to be imparted to the soft structures of the liver, and through such pressure its gradual absorption.

The line of demarcation between the healthy and unhealthy parts was perfectly distinct, the slightest traction producing a separation, leaving an apparently healthy surface of the liver exposed to view. I should say that nothing less than two-thirds of the liver had disappeared.

The most striking point of coincidence, in all the cases of this disease that have ever been brought under my notice, is its invariably appearing in horses of the same temperament and habits. This horse, similar to all the rest, was a fine, gay-looking creature, full of spirits—somewhat vicious—fed voraciously—was always fat. When kept short of hay he would eat the most filthy litter, voiding his fæces in small quantities, and often always accompanying the act with a half-suppressed groan, and might frequently be heard to sigh and turn his upper lip, particularly just after being turned in the stall.

These may appear, perhaps, unimportant minutiæ to recount; but a careful consideration of them, together with a deliberate examination of the symptoms in illness, cannot fail to enable us to give a correct diagnosis; and if a perfect knowledge of the changes which are passing within cannot avail us much in directing a remedial plan of treatment, still the consciousness of its incurability will sufficiently repay us for our attention to it, by relieving us of those unpleasant reflections by which we are sometimes assailed when unable satisfactorily to ourselves to account for death previous to the institution of a post-mortem examination.

December 14, 1845.

ACCOUNT OF CASES OF DISEASE OCCURRING AMONG DOMESTICATED ANIMALS AT THE EDINBURGH VETERINARY COLLEGE,

From the 1st to the 30th of November, inclusive.

By Professor Dick.

Disease.	Number of Cases. Horses.	Neat Cattle	Dogs.	Deaths. Horses.	Neat Cattle	Dogs.
Abscesses in various parts...	4	...	1	1	...	...
Bursæ, Diseases of.....	1	...	...	...	...	...
Caries of Bones.....	3	...	...	...	...	...
Castrations.....	1	...	...	...	...	...
Catarrh and Influenza.....	18	...	...	...	...	...
Choking.....	...	1	...	...	...	...
Colic.....	16	...	...	...	...	...
Constitutional Debility	7	...	...	...	...	...
Curb, with Lameness.....	1	...	...	...	...	...
Diabetes	2	...	1	...	...	...
Docking...	2	...	...	...	..	...
Diarrhœa.....	1	2	...	...	...	...
Dysentery	...	1	1	...	...	...
Enteritis.....	1	...	...	1	...	...
Eyes, Diseases of....	1	...	...	...	...	...
Examinations as to Soundness.....	25	...	...	...	...	...
Feet, Wounds and Bruises of	16	...	1	...	...	...
Corns in.....	4	...	...	..	...	...
False Quarter and Sandcrack in.....	2	...	...	...	...	...
Laminitis	4	...	...	...	...	...
Navicular Disease.....	4	...	...	...	...	...
Seedy Toe in.....	1	...	...	...	...	...
Quittor in.....	4	1	...	...	1	...
Ringbone, with Lameness	1	...	...	..	...	...
Fistulæ and Ulcers	8	...	...	...	...	...
Fractures.....	1	...	1	...	...	...
Grease.....	11	...	...	...	...	...
Hæmaturia	1	...	...	...	...	...
Heart, Disease of.....	2	...	...	...	...	...
Indigestion	2	1	..	...	...	...
Jaundice	...	1	...	...	...	...
Joints, Open.....	1	...	...	...	...	...
Lameness in Hip....	4	...	...	...	...	...
Ditto in Knee.....	5	...	...	...	...	...
Ditto in Pastern .....,...	1	...	...	...	...	...
Ditto in Stifle.....	1	...	...	...	...	...
Matter in Sinuses of the Head, not from Glanders	1	...	...	...	...	...
Parturition, Difficult.....	..	...	1	...	...	...
Phlebitis.....	2	...	...	...	...	...
	159	7	6	2	1	0

Disease.	Number of Cases. Horses.	Neat Cattle.	Dogs.	Deaths. Horses.	Neat Cattle.	Dogs.
Disease brought forward	159	7	6	2	1	0
Pleurisy, Pneumonia, and Bronchitis	12	39	...	...	31	...
Strangles	7	...	...	...	...	...
Spavin, with Lameness	8	...	...	...	...	...
Splint with ditto	1	...	...	...	...	...
Skin, Diseases of	4	...	..	...	..	...
Spine, Injury of	1	...	...	1	...	...
Sprains of Tendons, Ligaments, &c.	14	...	...	...	...	...
Tetanus	3	...	...	1	...	...
Teeth, Diseases of	11	...	...	...	...	...
Tumours	1	...	...	...	...	...
Weed (Inflammation of Absorbents)	4	...	...	...	...	...
Wounds and Bruises, excepting Feet	17	...	1	1	...	...
Worms (Intestinal)	...	...	2	...	...	...
	242	46	9	5	32	0

General Abstract.

Cases among Horses	242		Deaths in Horses	5	
„ Neat Cattle	46		„ Neat Cattle	32	
„ Dogs	9		„ Dogs	0	
Not included in above: Dromedary (Pleuro-pneumonia)	1		„ Dromedary	1	
Total number	298		Total number	38	
Cured or Relieved 260.		Died or Destroyed 38.			

The case of "disease of bursa" was one of those where great enlargement had taken place in both hocks, in a three-years old colt, with some degree of stiffness, but without lameness. These affections frequently depend on the formation of the hock, and may often be termed congenital; in other cases, they seem to be intimately connected with the kind of pasture on which the colts are reared, very hilly pastures being apt to produce them; in other cases still, they seem to arise from some injuries of the lateral ligaments of the hock joint, in consequence of which a slight change in the direction of the motion of the articulation seems to take place; but whether they arise from one or other of these causes, the result is, that a certain degree of friction, or, perhaps, it should be said, unnatural friction, is induced. To alleviate the effects of this an increased secretion of synovia takes place within the hock joint (and in connexion with it, within the other bursæ in its vicinity) to allay, as far as possible, the effects of the friction arising from

the perverted direction of the motion of the bones on each other: but, notwithstanding this, and although, for a considerable time, little apparent inconvenience is produced, it ultimately happens, if the animal is continued at work, that the enlargements about the hock become encrusted by osseous deposits, which interfere with the action of the joint, while the interior of the articulation is abraded, so that, although in the milder cases the articular cartilage is simply marked by slight ridges, yet in the older and more severe ones the articular surfaces of the astragalus and inferior end of the tibia become so worn that they exhibit an appearance like polished ivory, giving rise to what has been by some pathologists termed "porcelainous deposit," and in more severe and advanced cases still, this appearance has been worn off, and the cancellated structure of the bones is exposed. The "porcelainous deposit" as it has been called, is, however, nothing more than the hard shells of the bones simply polished by their friction against each other. This kind of friction takes place in all cases where the capsular ligament is distended with synovia, and will be easily traced in every case of the kind. The sulci which are found in all large and well-formed joints, and which are natural to them, must not, however, be mistaken for what is here referred to; for although the sulci are, in some respects, like ulcers in their appearance, they, even in that, are totally different from the effects of friction, in which case the articular surfaces of the cartilages and bones present appearances as if turned in a lathe. The treatment of such cases as these is generally counter-irritant in its nature; but moderate work, until the animal arrives at maturity, will be the best means of relieving the disease, and, perhaps, of averting it altogether.

The case of quittor, under the head "neat cattle," occurred in a valuable half-bred cow, the property of a dairy-keeper, near the College. Assistance was applied for on the 10th Nov., and on examining the case it was found that in the near hind foot there were several deep sinuses, extending from the coronets of both digits into the interior of the foot. One large sinus passed from the anterior to the posterior part of the foot, between and somewhat above the digits, and above the interdigital ligament, exposing the extensor tendon as it passes on each side to its insertion. Two other sinuses were situated near and on each side of the larger one; that on the outer side of the limb communicated with the cavity of the articulation between the large and small pastern bones. The history given of the case by the owner was, that about a fortnight previously the cow exhibited slight lameness on the foot affected, which when he examined he found to be hot, painful, and swollen. He treated her for some time himself, and

then consulted a smith with whom he was acquainted. The smith immediately applied a smart blister, and in a few days repeated it. The consequence was, that the inflammatory action already existing in the part, and to which cattle are so liable, was increased to such an extent, that matter formed internally, and in gaining exit had exposed the articulation and tendon. As the beast was in good condition, and there being considerable constitutional irritation, which, if the animal were kept under treatment, would cause her to lose flesh and much deteriorate her value, the owner came to the conclusion to destroy her, as he was informed that, if recovery did take place, the time to ensure it would be considerable.

It will be seen that pleuro-pneumonia, among neat cattle, has been prevalent during November. The characters that it displays do not, except in some cases, differ from those which it has shewn in other parts of the country where it has for a longer period raged as a destructive epizootic. The cases that have come under notice, and have been marked by symptoms somewhat different from those of the usual epizootic pleuro-pneumonia, were characterized by there being in the animal affected a decidedly greater tendency in the trachea and œsophagus to take on inflammatory action than in the lungs themselves. In one large dairy, where most of these occurred, the attack of disease in the throat was so sudden, that while the cows would take their meat well at one meal and ruminate afterwards, by the next feeding time the throat had become swollen to such an extent as to cause the smallest portion of food swallowed to lodge in the œsophagus, giving rise to the usual symptoms of choking, which were the earliest intimations of disease. In other cases great distention of the rumen came on, without any assignable cause, accompanied by a discharge of saliva from the mouth, hanging of the head, and coughing, which, of course, at first led to the supposition that some obstruction existed in the œsophagus. On examining the throat externally, however, it was evident that the altered condition of the parts could not be referred to any such cause, there being in the cases of this nature a large diffused swelling extending equally on both sides the neck, and mostly along its posterior half, which superficially was painful to the touch, considerably impeded respiration, and was attended by symptoms of pulmonic inflammation. In one of the earliest cases of this kind that occurred, the probang was introduced, under a belief on the part of the owner, and also of our own, that some obstruction existed. On having recourse to it, it was found that there was a space of from eight to twelve inches, along the œsophagus, near the chest, through which it was difficult to pass the instrument, shewing at once that the inflammatory action was the cause, not the consequence, of

obstruction. So completely closed was the passage along the œsophagus in some cases, that not even the most mucilaginous fluids could be swallowed, and any attempts to administer them were attended by expressions of intense pain, and coughing threatening suffocation, so that the cows were compelled to remain without food. This, in addition to the existence of pneumonia, necessarily induced great debility, and placed any curative attempts under great disadvantage. The means of relief lay, therefore, chiefly in external applications. Some of the cases recovered, but most of them terminated fatally. The duration of cases of this nature was short, from two to four days being the usual period of their continuance.

With respect to epizootic pleuro pneumonia in its usual form, it may be observed that, although only about one-fifth of the cases reported recovered, yet, as the disease very frequently occurred in animals that were in good condition, the owners generally sold them instead of incurring the risk of medical treatment. The cause of the great fatality of this disease appears to lie chiefly in its extremely insidious mode of attack, which leads owners of cattle to suspect little is amiss, until structural derangement of the lungs has run on to an extent that will not admit of remedy. This change of structure is caused by an effusion of lymph and serum, especially the former, which causes such a striking characteristic of the disease, and the peculiar tendency to its formation appears to depend on the sub-acute character of the inflammatory action; for it is well known that inflammation, not too intense in its nature, is most favourable to the effusion of lymph, and, generally, it is not until the disease has existed some time, and some of its consequences taken place, that the practitioner is called in.

As illustrating the similarity of operation of predisposing and exciting causes of disease among animals of the same species, it may be mentioned, that about the time when pleuro-pneumonia was most prevalent in the dairies, the dromedary at the Royal Zoological Gardens became ill, and died of the same disease. In consequence of want of proper care on the part of the keeper, no assistance was rendered to the poor animal until within a few days of her death. The symptoms presented, when first seen, were exactly similar to those in neat cattle, and on dissection her chest contained a great quantity of serum.

As two of the cases of "tetanus" are considered convalescent, we shall not say any thing respecting them until next month.

WILLIAM DICK.

REFLECTIONS ON GLANDERS.

By JAMES TURNER, *V.S., Regent Street.*

[No. 2 of a series, continued from THE VETERINARIAN for March 1845.]

IN my humble opinion, the greatest boon that has been conferred on veterinary science during the past year, 1845, is Mr. William Percivall's work on Glanders and Farcy in the Horse.

It appears that the great father of medicine himself, Hippocrates, upwards of two thousand years ago, pronounced the malady incurable. Vegetius, in the fourth century, gave no better account; during the dark ages nothing was gleaned. Our earliest English writer, Leonard Mascal (1587), had no correct notions of glanders. The continental writers, particularly the French, subsequently contributed very largely. Professor Coleman commenced his career at the London Veterinary College about half a century ago, and soon found that all the accumulated knowledge of ages was of no avail when the disease was confirmed. Mr. Percivall, my esteemed friend, schoolfellow, and colleague, follows in the next generation of distinguished observers of this direful scourge; his field of observation and opportunities of experiments has been very great, particularly during his early career. In the present state of veterinary science, it was a great desideratum that a writer of his acknowledged talent should have taken up the subject of glanders, and upon close perusal of it a most comprehensive and painstaking work will be found, affording knowledge to the student and young practitioner indispensable to his success, and to the experienced veterinary surgeon much enlightenment.

Mr. Percivall is fully aware, with other practitioners, that well-marked cases of *spontaneous cures* of glanders occasionally occur, as also cures under the influence of medicine or experiment; but they are "few and far between," like visitors from another world; and our author has not sullied his treatise with any vain flourish of trumpets, such as headings of "Glanders and Farcy Cured," but concludes with the following honest, plain, and straightforward statement:—"Passing from the accounts of others to *the results of my own observation and experience*, I would it were in my power to present my reader with an antidote as effectual as our prophylactic measures have proved against the horrible and fatal disease whose causes and nature we have been investigating. Few men in the veterinary profession have, perhaps, had greater opportunities than myself afforded them of making observations and experiments in cases of glanders and farcy; all, however, I regret to be forced

to add, has turned to little amount: glanders—*confirmed glanders* —has baffled every effort."

Now, just in proportion as disease or any other calamity prevails uncontrolable, so does the human mind become incited and absorbed in devising its nature.

Of those who desire to understand the *nature* of *glanders* (and where is the man of science, medical or non-medical, who does not?), all must read Percivall.

In addition to the general merits of the book, it is invested with a charm of a very rare order, viz., *truth* from beginning to end; the author, not having been wedded to any particular cherished theory, the facts of history, together with the facts of observation and experiment, are brought from the earliest records up to the present day, unadulterated and genuine, from their numerous and varied sources.

My own opportunities of observation have been extensive in all the varied employments to which the horse has been subjected, and therefore I indulge in the hope that a few additional remarks, notwithstanding my praises, may not be deemed inconsistent, should they clash, or even differ, with the views of the author.

Mr. P. has referred to that inimitable teacher, the late revered Professor Coleman, and his original doctrines on glanders, in a manner to which they are fairly entitled; but this leads me to embrace an opportunity of recording my dissent to certain conclusions arrived at by Professor Coleman, Mr. Percivall, and others, from the memorable experiments instituted many years ago at the R. V. College of London, of *transfusion of the blood* of a glandered horse into the bloodvessels of a healthy ass, whereby glanders is said to have been produced, and emphatically commented on by Mr. Percivall as "irrefragable proof of the constitutional nature of glanders and farcy." Here I am somewhat at issue with Mr. P., and have my misgivings that there was something fallacious in the result. I object to the experiment upon two grounds; first, that the ass, although of the horse species, is an improper subject as the recipient for the test, by *inoculation* or *transfusion*, owing to a predisposition or tendency in his constitution to generate glanders (amounting to idiosyncrasy) upon the slightest invasion of his vascular system by any foreign agent, especially if accompanied with the least obstruction in any part of the respiratory apparatus, whether within the passages of the head or thorax; secondly, the rude manner in which the Professor's celebrated experiment was conducted, vide Percivall, page 208:—"*In consequence of transfusing more blood than was requisite, the ass appeared puffed out and swollen in every part of his body.*" It further appears that four or five days elapsed before the tumefaction was relieved, in the course

of which time the animal became *glandered.* From several corroborative facts, which I shall hereafter adduce, I am fully impressed with the belief, that had the horse from whom the blood was abstracted been perfectly sound and in vigorous health, instead of being glandered, the result of such an outrage upon the ass as just described would have been the break up of his constitution, and the virus of glanders engendered, with the power of propagation. Only imagine the suffusion of the delicate mucous membrane lining the minute sinuosities of the air-passages of the nasal fossæ, their engorgement and sympathetic *absorbent* inflammation in the vicinity as a necessary sequence.

Mr. Vines, who has contributed largely to our knowledge on glanders and farcy, has produced *glanders* by inoculating an ass only with the matter of a horse, taken from a virulent greasy heel. (Vide his excellent publication.)

My own reminiscences are painfully acute, and I am too well qualified to bring to light incontrovertible evidence of the preference of the ass over the horse, not only to imbibe and foster the actual virus of glanders, but likewise the existence of an inherent power of converting one morbid secretion into another of a totally different character.

The melancholy case of my own brother, who was victimized by glanders at the Royal Veterinary College of London, as long back as the year 1816, would unfold stirring points in pathological study enough to fill a volume; but it will suffice in the present paper that I briefly allude to the insidious manner in which the destructive train was laid, and by which it was his destiny to be sacrificed.

My second brother, William Turner, had recently entered the College as a student. It happened that I paid him a visit one morning during the hour usually devoted by Professor Sewell for the inspection of the hospital patients. I was then an Army Vet., and at the same time in practice with my father at Croydon. Following the cases in succession, Mr. Sewell took a lancet from his pocket, and opened an abscess in the throat of a vigorous four-year-old horse, with the strangles, just ripe for the incision. White, thick, laudable pus flowed copiously; Mr. S. remarking, at the moment, this being so pure a case of simple strangles, it would be a desirable subject to *inoculate* from, with the view of producing *strangles* in a healthy animal. The deed followed the word instanter: under the skin, with the point of the lancet, the pus was inserted into several parts of the throat of a very healthy-looking ass, and pus was also gently rubbed by the finger into the Schneiderian membrane of both nostrils of the same animal. Within two or three days he became dull, coughed, and refused his food; both submaxillary glands

tumefied a little. The next symptom was a fine white and thick discharge from the nostrils, which, after the lapse of a day or two, increased enormously. The tumefaction of the jaw *decreased*, and gave no indication whatever of suppurative tendency. This profuse flux from the nostrils suddenly became extremely inspissated, causing stertorous breathing, but in other respects it was a very wholesome discharge. The quantity became so enormous, that all the sinuses of the nose and face were as mechanically obstructed as though they had been plugged with dough.

I think the case was genuine strangles by inoculation up to this crisis; but *here* commenced the fatal change in its character, owing to the imprisoned pus within the cavities of the head being in constant communication with atmospheric air. To be brief, the animal died within a few days of *acute glanders*.

It fell to my brother's lot to saw the skull, and prepare the morbid parts for the lecturer's table. The poor fellow was inoculated through a very slight scratch of the finger, which proved fatal.

Whatever may be the difficulties in the way of arriving at a feasible theory on this experiment, here is one great and most extraordinary *fact*. It was the germ of *strangles* which was absorbed and propagated in the system of the ass, and in the space of a few days became transformed into *glanders*, within the same organization.

The following experiments denote the comparative susceptibility of the horse and the ass:—With pus taken from my brother's arm I inoculated two healthy asses: they both died of farcy and glanders in less than a fortnight. Upon the same day, with pus from the same source, I inoculated a two-year-old horse colt, inserting the virus in various parts of the limbs, as well as the head, without any visible effects at the time, or afterwards.

[To be continued.]

GANGRENE OF THE HIND QUARTERS IN A HEIFER, FOLLOWED BY TETANUS AND DESTRUCTION.

By Mr. JOHN RELPH, *Sebergham.*

A GALLOWAY heifer, one-and-a-half year old, and in high condition, was found very lame on the afternoon of the 25th September last. Next morning I found some emphysematous swelling, evidently of a gangrenous character, a little superior and posterior to the left stifle joint. It was exceedingly lame in that limb—the countenance rather dull—the pulse increased in frequency, but not

in strength; respiration unaffected; the appetite a little so; excretions natural.

Five deep vertical incisions were made through the dark-coloured insensible parts, and the subcutaneous and intermuscular cellular tissue freely divided to the centre of the haunch, to facilitate the application of dressings and the exit of matter. Pulv. pot. nitrat. was then freely introduced, and pledgets of tow smeared with sulphuric liniment or black oil. A drench composed of pulv. lyttæ gr. v, with p. zingib. et p. gent. in gruel, was given, and a moderate allowance of grass and gruel ordered.

27*th.*—The gangrene has extended a little to the anterior of the stifle, and also upwards, towards the sacrum. An incision was made into the latter; the former was previously opened into the original cut. Repeat the dressings twice a-day; and give lyttæ, camphor, myrrh, ginger, and gentian, once a-day, with one pint of yeast.

28*th.*—Continue treatment.

29*th.*—No extension of gangrene on the left side; but on the right side two small emphysematous tumours were found on points nearly corresponding to those on the left, which were subjected to the same kind of treatment. There being an increase of sensibility in the parts contiguous to those originally diseased, and reaction manifesting itself, the strong stimulating tonics were superseded by a daily dose of hydrochloric acid in decoction of wormwood, and the yeast continued; but as diarrhœa supervened, and supposing it might have something to do in its production, it was discontinued. Turnips were allowed, with hay and gruel.

The dressings were regulated according to their effect upon the sores and on the system, and consisted of a thorough syringing with warm water impregnated with chloride of lime, and then one of the following:—Solut. pot. nitrat., sometimes strengthened by the addition of nitric acid, ʒj to ʒviij; nitric acid lotion, buck oil, tar oint., &c. It was found necessary to alternate the dressings, not only to keep up a proper action on the ulcers, but to obviate over-excitation of the kidneys, which so extensive an application of some of these evidently produced through absorption. Very considerable masses of cellular membrane, faschia, and muscle, sloughed off, and were removed at different times; but it was not until the twelfth day that the rectus muscle was detached and cut from its tendons, leaving a very awkward chasm in the left flank. The extensive sores now assumed a healthy aspect, and began to granulate; but the discharge was much more copious than I ever before witnessed in neat cattle. Astringent injections and nutritious diet were resorted to, and we were very sanguine in our expectations of an ultimate recovery; but on the fifth week the

owner noticed that it neither moved about nor fed so well as before. This I attributed to the sores; but on a more careful examination I found the action of the muscles of the jaws very limited, those of the neck and trunk much contracted, and the rumen distended: TETANUS had got a strong hold of the poor suffering creature. The very extensive wounds that yet existed in this case unavoidably kept up a degree of irritation that rendered a remission of the spasms highly improbable; and after three days' treatment without arresting the progress of the disease, humanity dictated that its sufferings should be abridged by the knife.

Having read the very able essay on this disease that appeared in your October number*, I shall not presume to expatiate on its nature; but, with a view to extend information, allow me to state that in Cumberland it is most prevalent from November to March inclusive. During that period the stirks are mostly housed at nights, and subsist on straw with an allowance of hay, and, in some instances, turnips. On some farms the disease is of much less frequent occurrence than formerly, although the management of the soil and of the stock is superior at the present day.

I have long entertained an opinion that the disease depends on an abnormal condition of the blood, and have for some years prescribed a preventive with much success; but the circumstances above alluded to do not appear to bear out the idea that the error in the blood is essentially connected with plethora. Of the existence of inflammatory fever, or of extensive local inflammation, with a due performance of the functions of digestion, secretion, excretion, and locomotion, which the spirited appearance of the animal often indicates but a few hours before death, I have no conception.

OPENED JOINT SUCCESSFULLY TREATED WITH BICHLORIDE OF MERCURY.

By Mr. T. JOHNSON, *Wath-upon-Dearne.*

ON the 24th of December, 1844, I was requested to go to Mr. John Wilby, of Mexbro, near Doncaster, quarry man, to see a brown cart horse, aged nine years, which had fallen down the quarry with a cartload of stones about three yards high, and injured himself very much. On my arrival I was informed the accident had occurred about a week ago, and that he had been bled and a dose of physic given him; that he had injured his hock very much, and

* Is not Mr. Relph in error in this reference?—E. V.

had had it well fomented and poulticed, but got no better. On examination, I found the hock joint opened on the inner side, and synovia escaping in very large quantities. I had the part well washed with water, and then applied pulv. hyd. bichlorid. to the wound, at the same time taking great care that no particle should get into the cavity of the joint. I then took a little more of the pulv. bichlorid., with some tow and new yeast, and applied to the wound, and bandaged the hock with some calico. I did not remove the dressing for six days, and was surprised to find the joint closed, and no escape of synovia.

I afterwards applied a little tinct. myrrh and tinct. benz. to the wound, and the parts healed and did well; but the hock remained much swollen and very weak for five or six weeks, and at times the horse had very great pain. I then blistered the hock, which relieved the horse very much: at the end of a month I fired him, and the horse has become as sound as any horse in Yorkshire, and never shewn any symptoms of lameness since. I have had two other cases, which have done equally as well with the same plan of treatment. If you think the case worth room in your valuable Periodical, by giving it insertion you will oblige, &c.

A SECOND LETTER ON PROFESSOR DICK'S PRACTICE.

From SAMUEL FISHER, *V.S.*

To the Editors of "The Veterinarian."

Gentlemen,

I am sorry thus again to trouble your columns in prompting Professor Dick to a duty he owes the profession. I had thought the age of empiricism was fast waning into oblivion,—that a secret mode of treating disease was now considered unworthy of *any* corporate and scientific body entertaining a sense of professional etiquette; having journals the value of which I conceive to originate in the fact, that any member discovering an improved mode of treating disease, might, through these media, enlighten the profession, thereby enhance the science, and make the professors of that science worthy of the confidence the public are willing to repose in them.

In Professor Dick's reply to my last, he states the information I

solicited at his hands "is in some measure the property of his pupils!" Now, this appears rather odd, for in other diseases he not only enters into the minutiæ of symptom, but of treatment also. Will his pupils thank him for thus giving away their property?

Pardon me, gentlemen, if I draw too hasty conclusions from the Professor's reply, when I state that it looks to me like an evasion unworthy of one holding so responsible a situation. I should have given the Professor credit for greater candour, had he replied somewhat after this fashion—"I sell my information at the rate of fourteen guineas each pupil; and what you may have seen under the head of 'Cases occurring in the Edinburgh Veterinary College' I meant as advertisements for that purpose." Judging from the numerical order of which, it appears that the means possessed by students of that establishment are far from being "limited," and from the manner he treats a disease hitherto *considered by the best authorities as incurable*, I cannot look upon them as "defective."

Trusting the Professor will no longer refuse my reasonable request, and by that means avoid "the risk, however small, of being charged with quackery," is the wish of one who has the honour of subscribing himself,

Gentlemen, your's, &c.

Waltham, near Melton Mowbray,
Leicestershire, Dec. 13.

LETTER ON PROFESSOR DICK'S PRACTICE.

From THOMAS WELLS, *M.R.C.V.S.*

To the Editors of "The Veterinarian."

Gentlemen,

IT has occurred to me, as I have no doubt it also has to many other members of the veterinary profession—(Mr. Fisher has already observed upon it)—that the practice at the Edinburgh Veterinary School certainly must be a very successful one, and quite sufficient to make us poor provincial Vets. vexed and dissatisfied with ourselves for not being able to treat cases successfully, which at the Edinburgh School appear to yield readily to treatment. In the first report published by Professor Dick, in your March number of the present year, cases of *open joint*, *canker*, *inflammation of the absorbents*, and *broken wind*, are spoken of as of every-day occurrence; and one is led to suppose cured as easily as a common

contused wound, thrush, an engorged limb without inflammation of the absorbents, or a case of common catarrh. Now, Sirs, as a practitioner of some years' standing, I have not found the abovenamed diseases so tractable as they are represented to be by the worthy Professor; and, moreover, in one of them (viz., broken wind) I have never yet witnessed a case of cure. I am aware that a broken-winded horse can, by attention to diet, and without the aid of medicine, be rendered very serviceable to his owner—be made to go through exertion in a way tolerably comfortable to himself; but beyond this I considered relief could not be rendered, much less did I imagine that a permanent cure was ever to be effected through the aid of medicine.

Such being my views, I can but express regret that the Professor has refused acceding to the request of Mr. Fisher, to divulge the secret of his discovery;—at the same time, I indulge a hope that he may be induced to alter his determination, and confer a boon on the great body of the profession, which will be highly acceptable to them, and for which I have no doubt he will receive their best thanks; at all events, he will those of, Sirs,

Your most obedient servant.

Castle Meadow, Norwich, Dec. 15, 1845.

Extracts from Domestic and Foreign Journals, Veterinary, Medical, and Agricultural.

Essay on an Aphthous Affection which prevailed among Cattle in the Canton of St. Avold (Moselle) in 1841.

By M. Reynal, *V.S.*

[Continued from vol. xviii, page 642.]

The Use of the Flesh.

The flesh of animals slaughtered while labouring under this disease is not unwholesome, any more than the milk. We have in our possession more than one case confirmatory of this assertion. We have eaten it ourselves, and we knew that a detachment of soldiers lived on such meat for a considerable period without experiencing the slightest inconvenience.

Sanitary Police.

We agree with the members of the Council of Health at Paris, that sequestration and setting apart of the diseased animals is to be avoided, not only as being measures injurious to the interest of cattle-owners and the wants of society, but also as being liable to produce even worse diseases than those which they are intended to remedy. There is no doubt but that such persons as have it in their power will prefer separating the sick from the healthy animals; and, considered with regard to hygiene and cleanliness, they cannot do better than so to do; but it is not absolutely necessary to do so, as we have already stated: unless the hoofs are affected, the animals may be turned on to the pastures without danger.

Prophylactic Treatment.

As soon as a cattle-owner is aware that an aphthous affection is prevalent in the neighbourhood, he ought carefully to visit all his stables, and look over every single beast, in order to see whether any of them present those symptoms which we have described as characteristic of the commencement of this disease. Should they exist ever so faintly, he should immediately have the animal removed to a warm corner of the stable, cover it with a woollen cloth, and put it on soft diet, such as barley meal and warm water, in which a small handful of bay salt, or, what is better still, a drachm of sulphate of soda, must be dissolved, or it may be merely acidulated with a little whey. If the loss of appetite is very marked, some very good fodder may be given. The animal should not be turned out to graze, lest the coldness of the atmosphere should nullify the effects of these precautionary hygienic measures.

A similar course of treatment should be pursued with regard to the sheep. None of those which appear in the least degree unwell should be driven to the pastures, unless they can be kept in spots sheltered from strong currents of air, and exposed to the rays of the sun; and, if the weather is foggy or the temperature variable, it will be more prudent not to let them quit the fold.

The same care should be bestowed upon the pigs, and a portion of their ordinary allowance of food should be subtracted: this precaution should be most rigorously adhered to whenever there is reason to believe that their provender has in any way influenced the development of disease.

All cattle-owners should likewise be upon their guard against the numerous quacks who, at seasons of general sickness or calamity, overrun the country. We cannot, either, too severely con-

demn the fatal habit which exists among farmers, of constantly having recourse to exciting drinks. We have more than once seen the disease, which was at first but trifling, aggravated, and the eruption rendered difficult, by the absurd and irrational use of such draughts.

The Curative Treatment

Is simple, easily practised, and cheap, when no complication of disease exists. When once vesicles have appeared in the mouth, the animal should be dieted. Cows and oxen should be gargled several times a-day with a decoction of barley and honey in which sufficient vinegar or hydrochloric acid has been mixed to produce a certain degree of astringency.

The gargling is managed by means of a small syringe, or, what is still more economical, by means of a bit of old linen affixed to the end of a piece of cane.

Where there are a great number of sick animals, it will be sufficient merely to acidulate the farinaceous drinks: we have done this by mingling vinegar with the product of the distillation of potatoes.

Those animals which are seriously ill should be kept as much as possible in the stables. Unfortunately this cannot always be done, as M. Levigney judiciously remarks, when speaking of herds of cows which constantly grazed on the pasturages. Under such circumstances, a prudent practitioner will act in such a manner as to incommode his employers as little as possible.

With regard to the exterior vesicles, there is no occasion to excise them, as that operation does not at all expedite their cure. The treatment best adapted for them is the same as that which we have recommended for those situated inside the mouth, with this exception, that the proportion of hydrochloric acid should be greater. Warm wine, sweetened, we have found very efficient in some cases.

We have, however, in other cases, seen ulcers around the alæ of the nose, and extending to the junction of the skin with the pituitary membrane, which have resisted the abovementioned treatment. We have then made use of a desiccative composition, and with benefit, as it in general hastens the cicatrization of the wounds. Lead cerate has completed the cure.

According to some veterinary surgeons, these ulcers occasionally take on a very malignant character: in such cases recourse must be had to the means most likely to put them in better condition, and bring on healthy action.

Towards the fourth or fifth day, treatment is usually productive

of marked improvement. About that time the animals usually endeavour to eat. They must not, however, on any account, be allowed to take any large quantity of food, as, from the state of vacuity in which the stomachs are, serious attacks of indigestion will inevitably be produced. Their food should be composed of substances easily digested, and which do not require much mastication. Potatoes, turnips, after-grass, lucern, and good hay, sprinkled with bay salt, have appeared to us well adapted for food during the period of convalescence.

As for pigs, their treatment is almost entirely hygienic. Cleanliness will, in the generality of cases, bring about a cure as speedily as any theurapeutic agents. M. Altmayer has made a similar observation. Nevertheless, some animals are so violently attacked, that, what with fever and debility, they are scarcely able to move. Proper diet, acidulated drinks, ventilation of the sties, and good clean litter, are then imperiously called for.

Such are the means which will in general produce a cure in about a fortnight in cattle. Pigs usually get well in the course of eight days.

Sometimes the aphthous epizootic is so slight as to be cured by the simple efforts of nature. M. Altmayer took no notice of the one which prevailed among oxen in 1839. M. Levigney has also stated, that, of the numerous cows attacked by it in Bessin, very few received medical treatment: most of the proprietors left them to themselves, and did not even observe any kind of regimen; and notwithstanding this, they got perfectly well, with the exception of some serious complications brought on by negligence of the owners.

We have hitherto spoken only of the aphthæ in the mouth, on the muzzle, or round the alæ of the nose; but it is very different when the vesicles exist round the inferior articulations of the limbs, in the interdigital space, or on the teats. The ulcerations then acquire, from their position, a certain degree of malignancy, which becomes increased by negligence or inattention to the cleanliness of the stables.

In point of fact, all arthrites, open-joints, tendinous exfoliations, caries of the bone, and fall of the horn, result from cattle-owners not having recourse to the advice of scientific men until too late, and who suffer the dung to accumulate and remain under the feet of their animals.

Frequent renewal of the litter, general attention to cleanliness, and astringent lotions, will generally effect a cure of the phlyctenæ in the interdigital space. If there is a chancrous aspect; if the ulcerations are pale, and the slightest touch causes them to bleed; if the animal limps much; if the swelling of the limbs is so great as to impede flexion; they must be frequently bathed with emollient

lotions. The ulcers must be dressed with some desiccative liquid, either a solution of nitrate of silver or the acetate of copper, if they put on any bad characters. In cases of perforation of the synovial capsule, we have obtained very satisfactory results from the use of pure extract of lead.

When there is detachment of the crust of the wall of the hoof, care must be taken to cut away with a drawing-knife the detached horn. We have observed that this operation favours rather than retards the progress of the ulceration. M. Casset has made the same observation. Desiccatives and excitants are required to stimulate the wound; and, above all, strict attention to cleanliness. These will ensure a cure when no serious complications have supervened. In larger animals, the shedding of the hoof is a very serious termination—one that, under most circumstances, entails the necessity of having the beast destroyed. But in sheep there is no occasion to despair of effecting a cure; the live parts will, in the space of about a fortnight, again become covered with horn, about which time the animal also again begins to rest upon the sole.

The presence of aphthous ulcerations on the teats may produce inflammation of them; in general, it determines milk abscess. Care must, therefore, be taken to milk the cows, and to attack the inflammatory symptoms at their very first onset. Vapour baths, narcotic decoctions of poplar used as fomentations, bandages kept on the loins, strict attention to cleanliness, and a frequent renewal of the litter, have almost always succeeded in effecting a resolution of the inflammation.

Injurious Treatment.

We cannot too strongly condemn early bleedings, and those fever-exciting drinks which are too often administered in the country. This irrational mode of treatment impedes the course of the disease, tends to throw the eruption in, and produces fatal metastasis. Cattle owners would always find it to their advantage to have recourse at once to a veterinary surgeon, whose assistance or advice would put them in the proper road to cure.

The Nature of Aphthous Diseases.

According to M. Huzard, sen., this disease consists in an extreme irritation of the extremities of the excretory vessels of the salivary glands and mucous follicules; an irritation caused by some acridity of the fluid which they conduct, or which they secrete.

It is only necessary to mention this opinion, and it will at once be rejected without further examination: the author has been led

into error by the abundance of the salivary fluid, which is but a *secondary* symptom of the affection.

Most veterinary authors give no opinion on this point. Messrs. Huzard, jun., Vatel, &c. pass it entirely over in their works.

According to Hurtrel d'Arboval, these affections are the consequence of a gastro-enteritis. This opinion, which is partaken by many veterinarians, does not appear to us so well founded that we ought, without examining it again, to rank it among the list of pathological facts. Indeed, if we are to be guided by a study of symptoms, by the progress of the disease and of the morbid lesions, we shall be led to form an entirely opposite conclusion. In the first place, are the symptoms and morbid characteristics of inflammation of the intestinal mucous membranes sufficiently evident? M. Manet observed them but once among a great number of diseased animals; and, for our own part, in the whole course of our observations of the epizootic we never saw them at all. Some veterinary surgeons, less profound than Hurtrel d'Arboval in this physiological doctrine, have founded this opinion on their having observed a diarrhœa at the decline of the disease, in fat, lymphatic animals that had suffered much. But, again, here this diarrhœa is the consequence of a weakness of the digestive mucous membranes: it is no more the consequence of any irritation than that which is seen when the animals are kept on green meat; and who is there that does not know that such and such kinds of fodder will produce diarrhœa in ruminants affected in the slightest manner by disease? On post-mortem examination of the animals slaughtered during the disease, there was not, in by far the greatest majority of them, the slightest morbid trace characteristic of gastro-enteritis. Lafosse has even found aphthæ in the trachea, the esophagus, and the anterior portion of the digestive canal. But is not their development in these organs better explained by the analogy of structure than by the hypothesis of the primitive existence of gastro-intestinal irritation? The conclusion to be drawn from the preceding observations evidently is, that aphthous affections do not follow on gastro-enteritis.

What is, then, the nature of these affections? If, in the present state of science, we were permitted to give judgment on this medico-philosophical point, we should say that aphthous diseases are the result of certain organic phenomena, of whose nature we are in ignorance, but to which the name of *fever* has been given. We are likewise of opinion that they will one day figure in the same nosological list with eruptive fevers, by the side of such as *rot*, *vaccinia*, &c.

Recueil de Médecine Vétérinaire, April 1845.

THE VETERINARIAN, JANUARY 1, 1846.

Ne quid falsi dicere audeat, ne quid veri non audeat.—CICERO.

CHRONICLERS of veterinary annals, after having paid due respect to the "illuminated" year in their Kalendar, 1844, as the one in which our Royal Charter of Incorporation was obtained, will have to note the year but just past as the one in which the Charter underwent its first trial. Diligently careful as the framers of the charterial instrument were that every veterinary interest—nay, even that every veterinary individual of any weight or consideration—should be consulted, lest through any inadvertency the provisions of the Charter might not turn out such as proved the best for the general weal of the profession;—cautious, we say, and slow, and circumspect, as the concoctors and abettors of the Charter were in their proceedings, it was hardly in the nature of things to be expected that they would or could succeed to the satisfaction of *all* parties concerned. Indeed, it rarely happens that any law or rule which works well for the general good, works the best that can be for individual advantage: the two interests can hardly ever, in all their various bearings, be combined; and since one must to a greater or less extent prove a sufferer, the matter resolves itself into the question, who or which party ought to suffer, the individual or the general, i. e. the *professional* body. There never yet was a law enacted by the legislature of the nation—an Act of Parliament passed—but that, howsoever beneficially it might operate for the public in general, it offended or did positive harm to portions or members of society. As loyal subjects to the state, however, though the law may pinch us a little, it does not become us to murmur and shew discontent: *pro bono publico* must be our national motto; and, *à fortiori*, as men really fond of our profession, desirous to promote its welfare, even though it be at some expense to ourselves,

PRO BONO VETERINARIO!

must henceforth be our acting professional principle. We must

banish all petty party and personal considerations, if we would *in earnest* act in concert with the profession at large.

The present number of our Journal, valuable for the matter it contains, as well as for the names whence that matter has emanated, furnishes us with bright and conspicuous examples of such disinterested professional spirit. In it we find Mr. Baker, of Reigate, in the genuine spirit of philanthropy, throwing out suggestions for the institution of a "General Annuity Fund," wherefrom professional old age and incapacity, orphanage and widowhood, may derive solace and support. In another place, we behold Mr. Mayer, senior, of Newcastle-under-Line, telling us, in the same spirit of professional brotherhood, how we may form among ourselves "Protective Societies and Associations," and of what advantage such assemblages, were they properly organized in the different counties and localities, could not fail to prove to us, a representative body. These, we repeat, are movements for the general, the professional good—have no *self* in their composition — arise from a pure and virtuous feeling of doing unto others as we would others should do unto us.

MISCELLANEA.

Swedish Stable Treatment of Horses.

It will seem rather singular to those who are accustomed to litter their horses well to hear that in Sweden it is very common not to litter them at all. In that country the floors of the stables are planked, and the planks are perforated with holes, so that no wet will lodge on them—these bare boards being the only bedding allowed. To this strange method the Swedes attribute the soundness of their horses' feet, as it is quite uncommon to meet with a lame or foundered horse in Sweden which has been so stabled.

ERRATUM.

In Mr. Percivall's Case, at page 2, line 8, *for* "the 19th," *read* the 9th of October.

THE

VETERINARIAN.

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LAMENESS.

By W. PERCIVALL, *M.R.C.S.*

[Continued from vol. xviii, p. 666.]

BY way of appendage to the subject of "ULCERATIVE DISEASE OF JOINTS," we would say a few words in explanation of certain appearances which there is, we believe, little doubt, have on more than one occasion been set down to the account of *ulceration*. It cannot fail to have struck any person in the habit of dissecting joints, that frequently excavations are seen in the articular cartilages, as though portions of them had been chiselled out, and that such appearances, simulating ulceration, are met with quite as commonly in sound joints as in unsound ones. The hock joint, more than any other, is notorious for presenting such excavations: in it they occur in these situations:—one of tolerably large size in the middle of the groove running between the condyles of the astragalus; another somewhat less upon the opposing surface of the middle projection of the tibia moving in this groove; and a third, still less in dimensions, is often to be found at the anterior extremity of the said groove of the astragalus. These excavations are distinguishable from caries or ulceration of the cartilage—First, by the absence of all signs of inflammation;—by being, on the contrary, found in joints displaying every aspect of health. Secondly, by their surfaces, instead of having an asperous feel, giving the finger, as it passes over them, the sensation of (though the surface may feel uneven) having had all its asperities rubbed off or worn down by friction. Thirdly, the cartilage or bone constituting the floor of these pits or hollows is found to have acquired a shining hardness and solidity of structure altogether different

from what is seen in caries or ulceration; and from this circumstance has it acquired the denomination of *porcellaineous deposit.* For our own part, however, we do not look upon it as any "deposit" at all; rather, that there has been *absorption:* at the same time, no doubt, there has been a transmutation of the substance remaining into firmer and harder material.

Were we asked what occasioned this absorption, we should answer, *pressure combined with friction;* and add, that the hock joint is the especial seat of these excavations, owing to the circumstance of its being the joint most of all exerted in progression. We look upon their presence as *fortuitous;* for they are not to be seen in *all* hock joints, and in some that are bone-spavined even are absent: nor can we, for our own part, see any use they serve, or any inconvenience they give, by their presence.

Ossific Disease of Joints.

The epiphyses of bones, entering into the formation of the joints, are frequently found encrusted with adventitious deposits of osseous matter, much augmenting their volume, and altogether, in many cases, altering their original shape; and these crustaceous bony deposits have their origin, commonly, in inflammation, chronic or acute, of the periosteal coverings of the epiphyses: we say "commonly," because it would appear that such changes of structure, and additions to it, do now and then take place without *any* precursory or accompanying inflammatory action, at least without any that is discoverable through outward signs. There is a very remarkable propensity in the horse's economy to what is called *ossific action:* an injury of any kind—a blow or kick, contusion or wound—to the periosteum, exciting inflammation in it, is almost certain to be followed by exostosis. Inflammation—or even increased arterial action—excited in the same tissue from other causes, will give rise to similar conversion of it into bone. The same observation will apply to the elastic fibrous tissue uniting the small supplementary bones of the limbs to the shafts of the large straight bones to which they are articulated, the union being of a nature that warrants the appellation of *joint;* so that here is an example, and a very common one, of ossification of a joint. In fact, ossific disease commonly has its origin and nidus in one of these two fibrous tissues—the periosteal or the fibro-cartilaginous; and may, as was said before, be the result either of inflammation springing up in its own proper substance or spreading into it from some contiguous tissue.

From the circumstance of our finding these adventitious osseous deposits for the most part in the vicinity of joints, as well as from

the fact of their being often associated with disease in the cavity of the joint, we learn to regard these two affections—the ossific and the ulcerative—as, to a certain extent, correlative or consequent one upon the other; nevertheless, on other occasions they shew themselves in solitary and independent forms. The following case of recent occurrence is well calculated to shew the connexion of periosteal with synovial disease, and their dependence one upon the other.

October 25th, 1845, Mr. A's bay gelding, while being led out for exercise, alongside of another horse, received a wound, trifling in appearance, from a kick upon the upper part of his near arm, which, at the time, bled rather freely, but did not cause lameness. The arm was fomented, and a dose of physic given next morning, during which day, on account of its being Sunday, he was not taken out to exercise. On the third day (Monday) he was led out, the physic requiring that he should be moved. There was now some trifling discharge from the wound, and a little stiffness on motion. The medicine operated well, and the fomentation was persevered in with unusual diligence, the owner being anxious about his horse, and all went on so well that on the seventh day from the accident, the animal was taking his exercise as usual by the side of another horse.

On the 4th November (the eleventh day from the accident) the groom perceived the horse walking lame on his return from his accustomed exercise, and, becoming alarmed at this unexpected relapse of lameness, brought the patient to me. This was the first time I had seen him. It struck me at the moment that the wound, which was still issuing purulent matter, was directly upon the bone, and the circumstance led me to make the remark, that it was possible there existed some fracture. At this the owner smiled in evident disbelief; for, although lame, the horse used the leg too well to admit for a moment the idea of his limb being "broken." From this time, however, I had him confined to his stable; and though under treatment, both constitutional and local, which commonly succeeds in cases of the kind, he daily grew worse. The arm took to swelling very much, and the discharge, which was at first purulent, became, on the third day after his confinement—the fourteenth from the attack—of a synovial character, shewing that the shoulder joint had become opened, although a silver probe introduced could not be made to enter it, but appeared to abut against the outer condyle of the humerus. Every means the case would admit of, without risk of further injury, was employed to detect fracture, and every now and then *crepitus* was distinctly heard; and yet, that no main shaft of bone was broken was evident, from the fact of the animal being able (when made

to do so) to stand and bear his weight upon the limb, and to walk upon it. Indeed, on one occasion, when thrown down by the accident of slings giving way—into which he had been put at the urgent desire of his owner—he actually raised himself up upon his lame limb. Every thing failing to afford relief, and his local malady having by this time, in addition to the enormous tumefaction of limb it had caused, aroused alarming constitutional irritation, it was deemed imperative, for humanity's sake, to put an end to the poor creature's sufferings. On the 7th December —the forty-third from the day he received the injury—he was shot.

Examination of his limb shewed a fracture of the external condyle of the humerus; and splinters of bone, broken off its side, were found, in fragments, lodged in the soft parts surrounding the condyle. A sinus was discovered leading from the wound into the cavity of the joint, which the probe had failed to find out. There had been for some days before death a diminution in the quantity of the discharges, owing to their having, through gravitation, burrowed underneath the faschia, among the muscles of the arm. The synovial lining of the joint presented spotty blushes of red in patches, and along the middle of the groove, running between the condyles of the humerus, to the extent of an inch and a half, existed *ulceration through the substance of the articular cartilage.* What, however, constitutes a remarkable feature of this post-mortem account, and what is of more consequence to us in our present inquiry, is, that from the surface from which splinters of bone had been detached, a crop of soft granulations—of *callus*—was seen springing up, which, in a short time, would have become converted into bone; and upon the bone in front, *above* the attachment of the capsular ligament, appeared a ridge of new formed matter, becoming osseous, running obliquely downward towards the inner condyle, from the superficies of which were sprouting similar granulations.

The value of this case to us consists in the connexion of the appearances inside with those outside of the joint, and in the period of time these respective morbid changes were known for certain to have taken place: it being fairly assumable that all parts before the accident—the horse being but three years old—were in the most perfect health. That the joint could not have been opened by the wound is evident enough; nor was any discharge of synovia apparent until after the elapse of a fortnight from the commencement of the case; so that the morbid alterations within the joint may be said to have occupied a month, or be of some such duration. Those, however, exterior to the cavity of the joint may have earlier date affixed to them: granulations, no doubt,

commenced growing from the fractured side of the condyle immediately after the setting in of inflammation, and the natural inference is, that the same inflammation which seized the broken condyle, spread itself upon the capsular ligament, and thence into the cavity of the shoulder joint, as well as upon the periosteum covering the epiphysis of the bone; in one case causing opening of the joint, in the other the conversion of the fibrous tissue into bone.

These are observations then that will serve us as *data* whereupon we may safely ground our theorizations on certain phenomena which present themselves in such diseases of joints of spontaneous—or apparently spontaneous—origin as resemble those arising from external injury. In spavin, for example, we have disease within the hock joint, and disease without it, the same as we have in several other joint affections; and it becomes necessary for us in all such cases to understand the connexion between the internal and external disease, and how either may exist independently of the other. There are few subjects that, heretofore, have had less attention paid to them, and consequently whose real nature has been less understood, than lameness arising from disease of the joint: every year of the present age, however, is adding to our knowledge of them, so much so, indeed, that we may safely predict that lamenesses hitherto classed as "obscure" in their nature, will in a few years become readily explicable by us. And this will be accomplished by observations such as are afforded us by cases we have had opportunities of watching in their progress from their beginning to their very end.

Concerning the Formation of New Bone, Dr. Watts, from a close and critical observation of four cases of injury and disease of bone, has come to the following conclusions:—

"1st. That the theories alleging that new bone is formed only by living parts of old bone, in cases of necrosis and fracture, are incorrect."

"2d. That the periosteum has evidently the power to produce new bone of itself, without the aid of the old bone."

"3d. That the formation of new bone by the periosteum consists, at first, in the deposition of osseous matter in the form of a fine microscopic network; and therefore, that the Haversian canals are only a secondary, not a primary, osseous tissue."

4th. That in cases of necrosis and fracture, the process of reproduction of bone by the periosteum is the same*.

For the Causes of Bony Formations, in the horse's limbs

* Edinburgh Med. and Surg. Journal.

at least, we must not look to inflammation alone. It has been brought under observation before, that the horse's constitution is such as is peculiarly susceptible of action tending to such formations; to which may be annexed the fact, of our constantly meeting with exostoses, of various descriptions, in young unbroke horses—colts that have never had even bridles on: we find splents, and spavins, and ringbones, &c. in subjects by whom no kind of work or exertion has ever been performed, and in places where inflammation, in no palpable or detectible form at least, has ever made its appearance. The tissue that becomes in the generality of these youthful subjects converted into bone, is that which constitutes the uniting medium between the small metacarpals and metatarsals, and between the ulna and fibula and the long bones to which they are respectively attached. All these bones sustaining whatever weight, happens to be thrown upon them through the strength of their attaching substances—they having no resting points below—to change this uniting tissue, whenever it is found inadequate to the resistance required of it, into bone, and thus enable the attached and now immovable bones to sustain additional force or weight, appears to us like one of those beautiful provisions of Nature we have so much reason to admire on other occasions. Whether this be or be not the true interpretation of Nature's proceedings, it is certain that as adult age approaches all these *epiphyses*—as they may almost be looked upon—become *apophyses*, or neither more nor less than so many lateral processes or protuberances.

If Inflammation be not the proximate Cause, what is the cause of these conversions of soft tissues into bone? We have no right—as was said before—to argue the presence of inflammation in the absence of every sign by which we are able to recognise it. At the same time we can very well imagine—in fact, we believe—that any undue stress upon the tissues in question proves the occasion of augmenting their vascular action, and that the effect of this is the commencement of a change of fibrous or fibro-cartilaginous tissue into osseous substance. According to Dr. Watts, it would appear that the ossific action had its commencement in the periosteal covering of the part, and from that extended inward: whether this be the case or no, it is notorious enough that the ossific operation does not cease until, besides uniting the branch to the trunk bone, it has produced a tumour—an *exostosis*—to which we, in conformity with custom, give the name of *splent, spavin, ringbone, &c.*, according to the part upon which it is found growing. When horses, however, come to be worked, to have their joints sprained or otherwise injured, the

inflammation consequent thereon, *is*, as has been already shewn, the ordinary precursor of exostoses occurring upon them, or in their immediate vicinity.

EXOSTOSES OCCASION LAMENESS OR NOT, according to the condition, of the nidus of *callus*, inflammatory or not, in which they are forming, as well as the condition, stretched or inflamed, of their periosteal tunics. In general, we know that horses do not go lame from splents; and also we know, that bone spavin frequently, of large size even, is present without occasioning lameness. On the other hand, simply a "knot" in the spavin place now and then evidently causes lameness. All this, we repeat, will depend upon the condition at the time of the callus and of the periosteum; though in the case of spavin in particular we must take likewise into consideration the proximity of the tumour to the joint, as well as the participation of the latter in the diseased action. The extreme soreness which now and then is manifested by horses whenever exostoses of which they are lame are felt or pressed, arises from an inflamed and morbidly sensitive state either of the callus or of the periosteum, or of both.

THE TREATMENT OF OSSIFIC DISEASE OF THE JOINTS will be best considered under the respective heads of particular lamenesses arising therefrom. We shall find it a form of disease which, so far as joints are concerned, is, as we have before observed, frequently complicated with ulceration of the articular cartilages; which consideration it is that has induced us to take *general* views of both forms of disease before we proceed to treat of their special forms, under the appellations of spavin, navicular-joint disease, knee-joint disease, &c. &c.

THE ROYAL VETERINARY COLLEGE, AND ITS FITNESS.

By a Member of the Royal College of Veterinary Surgeons.

I KNOW that, from time to time, a great deal has been written about—little in praise and much condemnatory of—the Royal Veterinary College of London. The subject, however, seems never to have been fairly treated; personal feeling appears to have suggested by far the majority of the comments that I have read, and the gentlemen by courtesy termed "Professors," and the public have a fair right to reject and to complain of charges originating in such a source. A full, true, and impartial account of the Institution

I have heard several persons desire to possess, and this I resolved to endeavour to supply. Before entering on my task, I sought to conquer the impressions I had imbibed, to forget all the assertions I had heard, and so to prepare my mind that I might impartially, nay, even with a friendly eye, survey what did exist, and faithfully report what I saw. After some delay, being, as I thought, fitted for the duty, I found my way to the north of London, and the following is the substance of my report, which, as the grounds upon which it is based are as familiar to most of your readers as to myself, prudence would withhold me from exaggerating, even were I capable of any disposition to misstate.

The edifice is situated in a part of Camden Town, called College Street, though, save on the one side occupied by the long dead front of the Institution, the ground is not yet built upon. The building has no pretence to architectural beauty. It is low and blank—plain even to bareness. It might be a warehouse, a barrack, or a mews. It certainly could not be associated with those artistic designs which in this country inform the spectator that he is looking upon the seats of science.

The chief entrance is under an archway guarded by folding gates. The gates, if thrown open, would afford a convenient entry for horses; but, for some reason which is not to be learnt by simple inquiry, they are kept continually closed, and the only passage allowed is through a wicket or door cut from the substance of one of them. Through that door a careful horseman may with difficulty guide a quiet animal; but no mounted groom, however ingenious, could possibly lead a second horse, and in the majority of instances I should imagine the knees of the rider would be exposed to injury.

Whether this way of entrance has been productive of accident I am not able to say; but I cannot hesitate in asserting it to be such as no private practitioner could suffer to lead to his establishment, and such as, with the better accommodation at their command, the most ignorant blindness or grossest negligence alone could induce the managers of the Saint Pancras Institution to retain.

Having passed the wicket, the visitor stands under the archway, and perceives two small rooms, entered by glass doors, lying to his right and to his left. One of these is the counting-house, where sits a clerk of a very respectable appearance. The other room, a closet about ten feet long and six broad, is the private consulting room of the "Professors" and the Library of the "College" conjoined. A small bookcase contains a few volumes, the paucity and antiquity of whose contents are calculated to excite surprise. Of such works as "The Horse" the Library of the Royal Veterinary College boasts only the earliest or oldest edition,

and of more recent and less popular treatises it does not possess a single copy. It contains, however, a few valuable editions of the elder veterinarians, but of these by no means a complete collection.

I inquired the object for which the library had been established, and was politely informed that it was instituted to afford the student and the practitioner a ready means of study and of reference. The practitioner, however, I was told, very seldom consulted it; and I cannot imagine what benefit the pupil desirous of learning the latest views and newest modes of treatment can derive from the privilege he enjoys of reading the works of exploded authors.

Having seen the library, I requested to be shewn the "reading-room." The answer I received was, "No such place existed." A library without a reading-room is a head without a body. At other and regularly constituted colleges the pupils profitably occupy the spare time between the lectures by consulting the various authorities to which the Professor may have referred, and thereby they act as a salutary check upon their preceptor, while they impress their memories and strengthen their understandings. It is much to be regretted that at the Saint Pancras Institution a similar course is impossible. Every book that is inspected must be taken home, and brought back again to the librarian before a second can be opened. By this regulation, were the works all modern and well-chosen, the library would be rendered almost useless, as the facilities for consulting the numerous authors it is most imperative to look into before the whole or the precise information can be obtained upon the nice points of anatomy, physiology and pathology, surgery, practice, and chemistry, are denied.

The non-existence of a reading-room made me curious to learn where the students waited the commencement of the lecture, or how they occupied their time between the different discourses.

"They could walk about the stables, or remain in the yard. There was no room of any description appropriated to their use."

The truth of the assertion was exemplified. In the archway many of the pupils were crowded round an old man, who, to avoid the wind, which was blowing coldly that morning, had passed the wicket, and was crouching behind the closed doors of the entrance. This old man had a basket at his feet, in which were oranges and nuts; and the young gentlemen surrounding him were striving to find employment for their leisure by listlessly consuming the purchases they had made, while others were seeking excitement in petty gambling, and a variety of idle, low, or dangerous amusements. The whole scene was one of painful vapidity.

"Surely," said I, "these young gentlemen, during the wet and cold of the winter season, require some better shelter, for I know

by experience that study is hardly to be pursued with success in the midst of discomfort. Beside, their parents are at heavy sacrifices maintaining them in London; and, not to glance at the temptations to which a constrained idleness necessarily exposes youth, it would be only simple justice to those by whom the place is supported that the sons of its real patrons should not be forced to waste any portion of that time, every minute of which is valuable to the future interests of the scholars, and accompanied with expense to their friends."

"I don't know. They need not waste their time. Those who lodge near enough may go home if they like, or they may go into the dissecting-room: and there's the 'Bell and Crown,' where there is always a good fire, close at hand. But the Professor generally takes the book round the stable at this hour, and gives clinical instruction. This morning he is half an hour behind time; but he'll be here presently."

Thus enlightened, and pained at the apathy with which the interests of those who, one day, must form the body of our profession were regarded, I requested to see the theatre, in order to give a turn to the conversation, which I felt could not be longer pleasantly continued.

Through a short stone passage, leading from the archway, I was conducted to a door that was found to be locked. A student was desired to "go and ask Sam for the key." Sam, who appears to be the custodian of the theatre, I afterwards learnt was a very intelligent person, holding the situation of head groom; and he having sent back what was wanted, we entered a room about ten feet high, fifteen broad, and twenty long. This apartment was lighted by two windows, between which, at a little distance from the wall, was a table, and in front of the table four rows of benches, slightly elevated one above the other.

Upon the benches the students sit to hear the lectures, the lecturers standing between the wall and table upon the floor of the room. Against the wall, at the back of the lecturer, provision is made for the display of diagrams. These diagrams consequently must be hung between the windows or in the darkest spot in the apartment; and the person who delivers the address must stand with his face in shadow, while the light falls full upon the eyes of the auditory; so that should diagrams, rendered obscure by darkness, be found of little use—should the orator, deprived of the aid of expression, his face being concealed by shadow, fail to enforce his observations—or should the pupil, oppressed by the glare, feel himself more inclined to yield to sleep than listen to the lecture—or should the whole of these effects simultaneously occur, no one would see in them any cause for wonder. The plan of the place

is the very worst that can be conceived. From the very slight elevation of the seats, a person on the hindermost bench would in vain strive to see any thing which might be laid upon the lecture-table; and, on inquiry, I learnt that, whenever any subject of interest is shewn to the class, confusion naturally resulted from the students standing upon the seats, or crowding towards the table; this necessary consequence affording a motive for not introducing either choice or valuable specimens or expensive instruments into the theatre.

The room, moreover, is badly ventilated, and, when I visited it, presented no picture of order or cleanliness. Nutshells and orange-peel strewed the floor. The table was wet and soiled—one or two vulgarly executed diagrams dangled against the wall—the blinds were indecently defaced with coloured chalk—and the paint which, long ago, had been placed upon the deal frame-work of this part of the building, was discoloured by time and disfigured by numerous devices.

Out of the theatre we passed directly into the museum. Its length may be thirty feet, and it is the most spacious room in the Institution. However, it seems to be larger than necessary, being occupied by preparations of neither a very choice, delicate, nor modern description. The dried specimens are so concealed beneath accumulations of discoloured varnish as to be for the most part worthless or unintelligible, and many others are so placed that they rather appear put out of sight than intended for inspection. Even the skeleton of the horse was imperfect: not to mention minor blemishes, the nasal bones were broken, and rudely kept together by coarsely threaded brass wire. My request to be favoured with a catalogue gained for me the strange intelligence that there was no catalogue, explanatory or otherwise, of this collection; and, from what I heard, I much suspect there is no one person living who could undertake to describe the contents of this extraordinary museum of a public institution calling itself a "College." I was, moreover, gratuitously informed, that very much of that which was here brought together might without loss be thrown upon the dunghill, and that the pupils had no right of entry to the place, though some of the servants of the establishment could boast of such a privilege. Considering all the facts, the exclusion, however indefensible, forms a subject of but little regret; and the museum, I believe, is chiefly regarded as a lumber-room, where is kept the apparatus of the lecture-table, though it may likewise be useful to impress the ignorant and mislead the uninformed as to the scope or purpose of the Institution, and its capability of instructing.

The stables are well built, but badly ventilated. Ammoniacal fumes were very pungent, even in those which were most airy; while, in some, the atmosphere was so impure as to be obviously unhealthy. In proof of the justice of my observation, I may instance the outhouse called a loose box, and numbered 51, which has a grating in its centre, through which the vapours from some open drain or sewer freely ascend. Some other of the boxes, as those for instance figured 26 and 27, are well constructed, though capable of improvement; but the aperture by means of which they are supposed to receive air is far too small, and placed considerably too high; while a luxuriant vine trained against the outer wall shades the open space, and excludes the little atmosphere which could enter were the space perfectly free. The existence of such defects, so easy of remedy, I only mention to give the reader an idea of the spirit that everywhere characterises the place.

I next desired to inspect the warm bath belonging to the establishment, noways doubting that a public institution must be possessed of that notoriously useful and not very recent invention. I learned that the Royal Veterinary College had no such addition to its infirmary!

There is, likewise, no harness-room to the premises; but a species of shed used for various purposes receives the saddles, cloths, &c., left by the owners of animals sent in for treatment.

About twenty-six horses, chiefly affected with trifling lameness, stood in the stalls. There was within the walls no cattle of any kind, and but one poor dog.

Having inspected the infirmary, I proceeded to view the dissecting-rooms. These consist of three apartments, two of small dimensions and one of moderate size, which last alone is provided with a boarded floor. In the first, through which the others are approached, is placed a large boiler and a huge cistern; and it appears to be regarded rather as an outhouse than a place of study; for there was much filth scattered about, and no subject or sign of any subject on the table, which stood unoccupied in the centre.

In the other small apartment, to reach which I crossed the larger room, there was a subject at which were employed some gentlemen who were standing on a plank covered with litter, for the day was very cold, the floor paved with flags, and the place was unprovided with a stove or fire-grate.

The larger room, centrally situated between the smaller two, is crowded with tables of various sizes, and on these were the carcasses of donkeys in different stages of dissection. All the tables, however, were not occupied. Many of the subjects were

but partially dissected, and some were rapidly decomposing, without attracting the attention of anybody. The effect of the whole scene impressed me with the belief that the same negligence and apathy which I had observed in other branches of the establishment also pervaded the anatomical department of the Royal Veterinary College. Only around two of the numerous tables were congregated a few students; and these young gentlemen were indulging in so much noise, that it would have been difficult to decide whether they were engaged in study or amusing themselves by some less serious and more excited pastime.

In this room I was informed that every morning, according to the regulations of the school, the pupils should assemble to listen to the anatomical demonstrator. The custom, however, had not, during the present session, been complied with, in consequence of the demonstrator having refused to deliver the discourses. In justification of his strange behaviour two reasons are advanced: In the first place, the demonstrator declares that, when he undertook the office, a distinct promise was made that he should be allowed to occupy the theatre during the hour of instruction, and on the fulfilment of that promise he insists as a part of his original contract. In the second place, he urges the obvious unfitness of the dissecting-room, and pleads his personal experience of the inconvenience which arose from the apartment being used for the reception and instruction of a large class.

It is but fair to add, that the party with whom the contract (a verbal one) was made, stoutly denies, in the most positive manner, that any promise of the kind was given, though the probability of some alteration of the kind, it is admitted, was contingently alluded to. There is something wrong here. Who is right I cannot undertake to decide. I lament, however, that young men who come to London for very different purposes should have their minds occupied and their studies interrupted by feuds of this description. It is not creditable to behold two persons, whose stations should make them zealous of respect, throwing about assertion and denial. This, however, is not the place to entertain the subject; but I cannot quit it without saying, that, if no promise was made, the demonstrator must be a fool in his vanity and a genius in his impudence;—a fool, to lie for a change which can bring to him no personal advantage; and a genius, to act thus determinately on a falsehood against the very party who must be best able to decide on his veracity.

In the second objection I must most cordially concur. The dissecting-room is totally unsuited for the delivery of any discourse. Filled as it is with tables, it is hard to conceive where or how the auditory, if numerous, are to stand, unless every thing contained

within the walls were displaced. Should the difficulty of standing be overcome, as the persons addressed and he who delivered the address must stand on the same level, by what means the majority were to see I do not understand, and the use of demonstrating an anatomical subject which was not to be seen I am unable to comprehend. The apartment is so inappropriate, that its objectionableness should have been seen by the heads of the College, and it ought never to have been permitted the demonstrator to point it out. The commonest appurtenances necessary for the object of teaching are deficient. I certainly did see the skeleton of a horse in one of the smaller rooms, and I was told that upon this it was expected the bones should be demonstrated to the class. The gentleman who undertook the task must either have possessed extraordinary genius, or the impossibility of seeing may have here rendered an imperfect, as fit for the instruction of the students as a better specimen of osteology; for the hocks were anchylosed, several of the bones were broken, and some were absent: the framework was curiously distorted, and the head was actually wanting.

Before leaving the place, I looked to observe what provision was made for the dissection of the *horse*. I saw none. No convenience of any sort for raising the carcass of an animal of this kind on to the tables: indeed, the arrangements were of the rudest and coarsest description, and poorly contrasted with those which I had seen in the anatomical departments of human schools.

I passed on from the dissecting-rooms to an open piece of ground only divided from a road faced by a row of inhabited cottages through the intervention of a thin and rotten hedge, which may serve as a landmark, but can afford neither protection nor privacy. On this exposed and public spot, however, I learned the donkeys were destroyed, horses slaughtered, and all operations performed. There is a species of shed, a heavy square roof supported by huge posts, under which the Professors operate. Little boys and female children of the most tender ages, I am told, clamber upon the bank to peer through the hedge, or mount upon adjacent prominences, to witness the dying struggles or constrained agonies of animals here daily subjected to the knife, the firing-iron, and the poleaxe. To the eye of youth, the sight which the publicity of the place here invites to look upon, must be of a demoralizing and a barbarising tendency; and to the spectator of riper years every operation, however necessary or however skilfully performed, must, when viewed in ignorance of its necessity or its design, be degrading in its influence. The exposure is wholly indefensible. There is not a knacker in the metropolis but better provides against shocking and corrupting the inhabitants and children who live around his place of business;

and between the knacker's yard and the slaughter-place of the Royal Veterinary College the acutest vision could perceive no moral distinction. Where are the authorities?

Indignant and disgusted, I resolved to see no more, but at once to quit the place; and in doing so had an opportunity of surveying the ground which is especially appropriated to the examination of horses. It is of good dimensions, nearly square, but rather longer than broad, and is on three sides enclosed by the stables, museum, &c., the other being occupied by a covered ride for exercising the patients under during wet weather. The middle space is laid out as a grass-plot, in the centre of which, on a conical mound, is a pretty ornamental cluster of shrubs, which, as they face the general entrance, must, in the summer season, render approach to that part of the premises, where all visitors are received and the greater part of the business of the establishment transacted, picturesque and inviting. I should say this was the most commodious and best conceived part of the whole design; but, nevertheless, even this is open to serious objection. Between the angles of the grass-plot and the walls of the buildings is a road, partly paved, partly gravelled, used as the "run," along which the horses are led when there is a desire to test the soundness. This "run" consequently presents two right angles, and it is separated from the grass-plot by a row of stout posts, from which hang connecting chains. Had the corners been rounded off, the sharp turns and sudden checks which must now frequently irritate the animal it should be desirable to keep composed, would have been avoided. The chains and posts, that are but poor ornaments, and cannot be required for any useful purpose, being I believe of use only as affording amusement to the students, who employ their enforced idleness by leaping over them, present a more obvious and less pardonable error; for, if an animal should frisk about, the heels of a valuable horse might suffer lasting injury. Accidents of this description, I am informed, have occurred; and why, after the proof of their dangerous existence has been given, these things are permitted to remain, can only be accounted for by viewing them in connexion with the neglect and apathy which pervades every feature of the Institution.

Having reached the archway, and thanked the person to whose attention I had been beholden, I hastily recalled what I had seen, and glanced at what must be the nature of my report. It could not be concealed that I had looked upon much which honesty would compel me unequivocally to condemn, and that I had seen but very little upon which could be bestowed even a qualified commendation. I paused: I desired to view something which might mitigate the censure it would be my duty to pass on the

institution. I longed for some object that would admit even of a show of praise; for, in truth, I shrunk from the task which my that-day's-visit seemed to have imposed upon me.

"Stay," said I, recalling the party who had just quitted my side: "chemistry is taught in this College, is it not?"

"Oh yes, sir," was the ready reply.

"Well, then," I answered, "I have not seen the laboratory. May I trespass so much further?"

"Laboratory! Laboratory, sir? Why, there is no laboratory here, and never was."

Confounded at the answer, though somewhat amused by the surprise of the speaker, who evidently viewed my request as one of a most unreasonable nature, I asked—"If there be none, how does the gentleman who professes chemistry prepare the experiments necessary to illustrate his lectures?"

"Oh, very well, sir. He gets his *things* ready in the pharmacy."

"Ah! just so"—as an itinerant lecturer prepares his tricks in the back kitchen of a ladies' seminary before he proceeds to alarm and surprise the little dears by a display of all the wonders of science.

I hurried through the wicket, lowered in my own estimation, and smarting for the honour of my profession. When, checking my speed, I turned round to take a last look of the place called the "Royal Veterinary College," I could not help conjuring up the magnificent edifices which, as medical institutions, adorn the country; and though rivalry might not be expected, I became conscious that the dissimilarity was here too great even to admit of contrast. A school without a school-room—a library without a place to read in—a demonstrator without a place to demonstrate in—a chemical class without a laboratory—a museum without a catalogue—stables badly ventilated—a theatre badly lighted—the gateway closed—the slaughter-ground exposed—things that were valueless if not seen locked up—objects that decency would hide made public;—the whole left a melancholy impression on my mind. How could my profession attain the rank which, its merit justly considered, it asserts, when a stranger can walk to Saint Pancras, look on the bareness of the Royal Veterinary College, and say to himself—"Here is the head and representative of a class which would be regarded as a worthy portion of the scientific body?"

Yet the building has capabilities, were there spirit and inclination to turn these to advantage. A damp locality and badly chosen situation no genius could remove; but the ground occupied, if properly employed, would afford all that accommodation which ample

funds and fifty years' experience have failed to suggest to the managers of the Royal Veterinary College.

REFLECTIONS ON GASTRO-ENTERITIS AND INFLUENZA.

By Mr. W. C. Lord, *F.R.P.S., V.S.* 17*th Lancers.*

To the Editors of "The Veterinarian."

Gentlemen,—In looking over Mr. Percivall's Hippopathology, vol. ii, I have been struck with the following remark on Gastro-Enteritis:—"One case—one solitary case—is all that is to be found in The Veterinarian on the subject from our own countrymen. How is all this? Is it really so rare a disease? Or have we, when it has been present, called it, or rather miscalled it, by any other name?—By fever, or influenza, or something else. From its mostly occurring in the epidemic form, it was natural enough for us to give the disease the name of Influenza."

Now, gentlemen, as I have seen many cases of this disease, and have always, when called in time (with the exception of one or two cases), succeeded in curing it, I will venture to give my views, which are very simple when contrasted with D'Arboval's, on this important subject.

You are, no doubt, aware that, during the spring and fall of the year, a very important process is taking place in the constitution; that the horse at both periods is losing his old coat, and getting a new one. This, to the general or casual observer, seems a very simple affair, but the acute veterinarian will observe that it is always accompanied by constitutional disturbance. The appetite becomes more or less capricious: it may be defective, or it may be voracious, which, I may state, I have often observed, and indicates morbid action. The temperature of the body is changeable, and suffers from chills and heats, which may be of so slight a character as to pass unnoticed; and, indeed, I may say, in the majority of cases, you cannot discover them in any other part of the body except in the extremities; and here, in horses that have not their legs bandaged, you will always in the spring and autumn perceive variableness of temperature—sweating is produced more readily on exertion than at other times; and I have usually re-

marked that my hunters purged when taken out with the hounds at the commencement of the casting process, from which I would infer that the secretions are all more or less altered. That this proceeds from nervous debility, I think, there can be little doubt, when we reflect how easy it is to tire a horse, or, in jockey phrase, how "foggy" he is at such times, though, in making this remark, I am aware I differ slightly from a very clever veterinary author.

But, to sum up all these phenomena in one word, he is suffering from fever of a low and debile character, with a determination of nervous energy to the bulbs or roots of the hair, and a consequent decrease of nervous power in the internal parts of the body, more especially in the mucous membrane, as it presents the largest surface for secretion, being everywhere thickly studded with small glands for the secretion of mucus.

Now, as a certain portion of nervous energy is necessary for the healthy secretory process to be carried on in the mucous follicles, it follows that, when these are supplied in a less ratio than is compatible with health, they must become weak and diseased; and what is the consequence of glandular weakness? Is it not derangement of the secretions of that gland?—for instance, grease and which is another disease that D'Arboval places as the effect in light of the cause: but this is a very common error with French veterinarians, and men who attempt to draw fine pathological distinctions.

Yes, gentlemen, I repeat that, although I differ from the French, I shall be borne out by all good English veterinary surgeons, that grease arises from weakness caused by diminution of nervous energy in the glandular apparatus of the skin of the heel, giving rise to an alteration in the quality and quantity of its peculiar secretion; and a somewhat similar weakness and consequent alteration in secretion of the mucous membrane lining the stomach and bowels, causing indigestion, slight abdominal pains, &c., gains for it the appellation of *gastro-enteritis*.

If the same membrane lining the bronchia is similarly affected, it is called bronchitis. If there is a defluxion from the nostrils, the air-passages becoming affected, and the glands of the throat swelled from the change that has taken place in the quality of the secretions passing through them, it is called catarrh; or, owing to some peculiarity in the fever which has given rise to catarrhal symptoms, it is called *influenza*. *But, with the exception of the difference in locality*, bronchitis, catarrh, influenza, and gastro-enteritis, are one and the same disease, and are all mere effects of constitutional disturbance or fever. Then, if this is the case, all those variously-called diseases or common effects of the one disease

(fever) must be more general, and are therefore called epidemic in the spring and fall of the year, when the animal is coating; at which period I have already proved there is fever in the system, and this agrees with the following passage in Mr. Percivall's Hippopathology:—"I believe many of the cases presented to us about the spring and fall of the year will be found to possess the gastro-enteritic character."

He might add, that every case of influenza possesses it in a more or less degree, for we cannot have fever to any extent without the functions of the digestive organs becoming more or less impaired; and laying hold of this effect, instead of looking for its cause, the celebrated Broussais asserted that four-fifths of diseases consist in irritation of the mucous membrane, and that therein resides the essence of fever. I however feel confident that any person who takes nature as his guide will not agree with Broussais, or with the following passage in D'Arboval's exposition of the disease:—"The principal and most constant lesion, however, that which constitutes the disease, and from which all others were derived, was inflammation of the mucous membrane of the stomach and intestines."

Now, gentlemen, the civil veterinary surgeon may not have the same opportunity of seeing this disease in its first stage as the cavalry; for the latter inspects almost every horse in his regiment twice a-day, and consequently must detect the first symptoms of disease. But those who have been called in will agree with me at once, that all the symptoms of fever, as chilliness and heats, increase and alteration in the character of the pulse, and also in the respiration, together with loss of appetite and dulness, always precede any indications of gastero-enteritic irritation. Therefore it is from this fever, and not from "inflammation of the mucous membrane," that all the various phenomena and complications attending gastro-enteritis (and so minutely detailed by the French) are derived; the gastro-enteritic affection itself being one of the many effects produced by the same cause which in one animal gives rise to the assemblage of symptoms, termed influenza, and in another (according to the constitutional predisposition, &c.) to those which constitute gastro-enteritis. Any person that will take the trouble of placing Professor Dick's description of influenza by the side of D'Arboval's gastro-enteritis, will perceive the similarity that exists between the two, and this is precisely what we should expect, as there is nothing specific in either; for the symptoms in both, as I before stated, are mere products in the same membrane of one parent, and that parent is fever.

I do not mean to say that this fever is always produced by one

single agency: it may be caused by a sudden change in the weather, by moisture, by bad food or water, by a sudden chill, or by any or every agency which can disturb the functions of the brain and nervous system. But, however this fever has been produced, it is necessary for us to know that it exists, and that it is to it our attention must be principally directed; and this leads me to its treatment.

But, as all the readers of THE VETERINARIAN may not have that best of all English veterinary works, Mr. Percivall's Hippopathology, to refer to, I will first give the symptoms of gastro-enteritis, as I have observed them in the army and out of the army, in England and out of England; as it is by no means a rare disease in other countries, or in America, where my first thirst for the investigation of veterinary science commenced.

The Symptoms are—loss of appetite, dulness, shivering, and staring of the coat, cold extremities, pulse and respiration but slightly increased.

This stage has usually passed off before the veterinarian sees the patient, so that when he arrives he finds the surface of the body much warmer than usual, the head drooping or resting on the manger, and to all appearance he is suffering from headache. The eyelids are nearly closed from serous infiltration, and very often we find this serous effusion in various external parts of the body, as the legs, sheath, chest, and belly, and, if it comes on early in the disorder, is a favourable indication.

The appetite is completely lost, but thirst usually undiminished, although in some cases, and particularly when the throat is sore, he will neither eat nor drink. The pulse may be 50, or it may be 100, and in one case I remember it 120; but in the majority of cases it is small and characteristic of debility after the first paroxysm has subsided.

If the mucous membrane lining the air-passages be the part principally affected, he retains the erect posture; but if, on the contrary, the same membrane lining the stomach and bowels bears the brunt of the disease, he generally stretches himself out at full length in the stable, and seems quite indifferent to every thing around him: however, if you now press on the abdomen, he evinces signs of pain by groaning, raising his head, and pointing with his nose to the part in which he suffers most; and if you watch his eye when using this pressure, you can read in it the pain which you assuredly give him, and which is usually of a sub-acute nature, yet not invariably so, for I have, in some horses, witnessed a great uneasiness, such as pawing, lying down for a few minutes, and then again resuming the same desponding position

as before. His respiration becomes quick and short, the bowels are costive, the dung being either black and covered with slime, or dry and clay-coloured. The urine is also made in small quantities, and changed in colour and consistence. The tongue is foul and clammy, and not unfrequently swelled. The breath in two horses, whose death evidently was caused or hastened by bleeding, acquired so offensive a smell, that I could hardly go near them. I have also, in damp low situations, and particularly in the centre of Ireland, observed a swelling of the head to accompany those symptoms. The ears are usually cold and bedewed with a clammy sweat, and the temperature of the body is variable; but the most prominent feature in this disease is the rapid tendency to weakness. If not soon relieved, he may become affected with inflammation of the lungs or pleura, inflammation of the heart, and, which is a very common occurrence, inflammation of the kidneys or bladder; and an effect which I have frequently witnessed at the decline of the disease is inflammation of the synovial membrane of the joints. But, as I think you would rather have a case from the regimental records than from my book of private practice, I will take the last scenes and post-mortem appearances from Case 56, No. 8 of 3d Troop. The mare was admitted to hospital on the 20th of June, but from that day to the 30th did not eat so much as a mouthful of hay.

June 28th.—Affected with extreme nausea and abdominal pains; her pulse quick and thready, but until this day it continued soft and feeble; her respiration has become deep and jerking, eye dull, lid infiltrated, and she seems quite to give up all hopes of her own recovery. Her extremities are not cold, though the ears are bedewed with a clammy sweat. The dung, which is hard and covered with slime, has a most offensive smell. The tongue is foul and clammy, and the breath tainted. She is very restless—pawing, getting up and down frequently, grinding her teeth, looking at her flanks, and, if offered food or drink, throws up her lip with disgust.

29th.—The abdominal pain still continues, and I find it rather increasing every time I drench her; but the hot flannels give her considerable relief. She will drink nothing but what she is drenched with, and her bowels are yet costive.

30th.—Fell down, her hind extremities having become paralyzed, and after two hours of extreme suffering she died.

Post-mortem.—The lining membrane of the œsophagus slightly inflamed, but the vascular membrane of the stomach was very red. What appeared to me rather strange was, that there were five or six bots attached to it, and only two to the cuticular coat.

The small intestines were slightly inflamed, but the lining membrane of the large, and of the cœcum in particular, was very much so, being, in some parts, quite black and ulcerated; and lodged in the mucous membrane, or between it and the muscular coat, were innumerable small calcareous bodies about the size of a pea, but largest and in greatest numbers where the inflammation was most intense, and so hard that I can with difficulty divide them with a sharp knife. I would enter into the nature of their production with reference to the disease, but I find it would make this article too long. The liver was diseased, but neither the kidneys, bladder, nor spleen, in this case, appeared to be so; nor was the heart much affected, though the right cavities were filled with yellow fibrinous concretions, the left with black blood, and the tricuspid valve redder than natural. Right lung slightly diseased, the left sound. In every other horse that I examined after death I found the heart much more diseased than in this one.

Treatment.—Were my theory an imaginary one, and not founded on facts, together with a due reference to nature, I would never bring this part of my reflections before the public; for I am aware of the opposition which it will meet from the great body of veterinary surgeons, both in the British dominions and on the continent; but, having weighed and sifted it thoroughly in the sick stable, I have attained a degree of confidence which my years in the profession would not, in any other respect, entitle me to. This being premised, I shall commence in the same place with the majority of authors, by reference to bloodletting, but with very different views on that subject. D'Arboval says—"Among the therapeutic combatants for it, the most useful is bloodletting, &c." Now, to a person taking a confined view of this disease, or of the fever that produces it, this treatment appears very correct; for he looks upon the debility which always accompanies it in a greater or less degree, as also on the fæces, as being both effects of inflammation of the mucous membrane: and such a person's argument is, "reduce the inflammation by bleeding, and you will prevent the fever from assuming that low typhoid character which usually carries the animal off."

This theory appeared to me, at one time, very plausible, until I met with a few cases of the disease; and what led me to doubt its accuracy was, that I could never meet with a case in which there were not evident signs of debility present before the fever acquired its height, and before there was any inflammation of the mucous membrane: then, with such a fact as this before my eyes, and with the evidence of Broussais that both fever and convulsions are caused by bleeding, how could I any longer doubt

that weakness of the brain and nervous system may be a cause as well as an effect of gastro-enteritic fever? To account for this weakness in spring and autumn, I must again direct your attention to the coating process, and to the fact that, during that period, there is an increased determination of nervous energy to the skin; and consequently it is in a great measure abstracted from the whole of the digestive organs, the result of which must be inability of those organs to convert the food into its elemental principles, or to separate the nutritious from the innutritious matter. Then, as the food is passed through the intestinal canal without affording its usual nourishment to the blood, and as the brain cannot remain in a healthy state without a sufficient supply of that fluid, can we wonder at the whole system becoming weak, and falling into a state of derangement or fever? This low fever may continue during the coating process, or for an indefinite period, without causing any thing more than mere functional derangement; but if an exciting cause (such as a sudden change in the weather, &c.) is applied, this fever may become typhoid or malignant, or may terminate in inflammation of the mucous membrane lining either the ærial passages or intestinal canal. And, if we want further proof than my own senses afford of this disease being caused by weakness, I have only to turn to Dupuy's account of it, in 1825, when it assumed a vertiginous character, and was, he says, particularly fatal in old horses, and such as were oppressed with work beyond their powers, or otherwise debilitated.

But a more familiar fact to almost every veterinary student is the appearance presented by an animal slowly bled to death. In it we perceive the quick pulse, spasmodic twitchings and pains, the same flatus or secretion of air in the intestinal canal, as also the shivering fit and sweating fit, together with vertigo, and other prominent symptoms of gastro-enteritis. However, what thoroughly convinced me of the impropriety of bleeding in this disease was having witnessed two cases that appeared to have nothing more than the ordinary symptoms about them, but they were bled, and both from that moment got worse; and the fever, which, prior to the bleeding, was of a mild character, speedily became typhoid, and the consequence was death. They were both bled, I should add, early in the disease. In the same stable with one of those that died from this bleeding was another with higher inflammatory symptoms, and evidently worse than the one that was bled, and yet he recovered without losing a drop of blood. Since then, although I met many cases similarly affected to those three horses, I always abstained from blood-letting; and my success has been such as to convince me of the inutility of that operation in subduing this fever.

But, although I fear I shall incur the censure of the most successful practitioner in our profession in his treatment of those epidemics, by bringing his name before the public, yet I am under so deep an obligation to my predecessor, Mr. Wilkinson, now veterinary surgeon to the 2d Life Guards, for allowing me to see his practice in 1841 and 1842, that I cannot pass over this part of my subject without again thanking him for his kindness in opening my eyes to the fallacy of bleeding in influenza and gastro-enteritis; and whether my theory for abstaining from it be a rational one or not, I leave it to the profession to decide: but of this I am confident, that any unprejudiced person who will test it practically in these catarrhal epidemics will lose much fewer horses, and restore them to health in a shorter time than by the present system of blood-letting. If there is too much nervous energy, can he not subdue it by many other equally effective remedies, and leave that fluid in the system, which is so necessary after the disease be removed, to repair the ravages which it has committed, and by that means prevent those chronic terminations and complications? But in the majority of cases, you will find that, instead of diminishing, we must do all we can to strengthen the brain and nervous system: and what can more forcibly prove to us the utility of this treatment, if properly used, than the benefit which almost immediately follows the exhibition of a stimulant in the cold stage or shivering fit? A very good ball for this purpose is that recommended by my esteemed friend Mr. Gloag, of the 10th Hussars, in his "Hints to Cavalry Veterinary Surgeons:" it is composed of carbonate of ammonia, camphor, and ginger. Then, when the cold stage has passed off, shall I be guilty of so great an inconsistency as to bleed, in order to prevent this low fever from becoming typhoid? No, certainly not: I still continue my treatment on the same principle with which I commenced, by the administration of a mild laxative combined with some carminative, in order to get the digestive organs to perform their proper functions, and by that means strengthen the system. But I am not satisfied with stimulating the digestive organs alone, for there are other parts of the body, equally essential, suffering from debility, as the kidneys, absorbents, &c.; so I help them on to healthy action by mild diuretics, and, though last not least, I strike boldly at the fountain-head of the whole—the morbid irritability, or weakness of the brain—by the administration of tonics.

I regret that time and space will not allow me at present to enter more minutely into this important subject, for I fear that in curtailing it I have rendered some parts not quite so intelligible as I should wish, and have also been obliged to keep back some facts which would tend to strengthen my arguments; however, it may be

as judicious to keep up a "corps de reserve," in case of an unexpected sally from the enemy's camp. But I do not think my professional brethren of this country will offer me any opposition, although they may be equally startled at my condemnation of bleeding as at the undeniable fact, that broken wind can be cured; indeed, I dare say they will be even more so, as I do not know a single veterinary surgeon but Mr. Wilkinson, of the 2d Life Guards, to whom I can appeal for the practical truth of my assertion. But they will all at once perceive that nothing but a love for my profession and a desire to serve it have induced me to lay these my humble reflections (on a subject apparently wrought in mystery) before them; and, with the same object in view, I am at present busily engaged making some experiments, and carefully watching some other diseases, as also in testing the action of medicinal agents. However, I shall never consider any personal trouble too much, so that I can serve a science of which I feel justly proud.

And with a fervent wish that a few years hence may find us all pursuing a more rational and consistent course of treatment than we are doing at present,

I have the honour to be,

Your's, &c.

Cavalry Barracks, Brighton,
January 1846.

*** I should state that in all my *post-mortem* examinations of horses dying from low fever, and in which evident signs of headache were present, as also in those affected with gastro-enteritis (with the exception of one case), I have found *a serous effusion in the lateral ventricles of the brain*, and which I look upon as an additional proof of the weakness of that organ.

SPLENT.

By "No Vet."

It is proposed to call attention to the looseness of language, habitual both with veterinary writers and practitioners, on the subject of splent. The writers generally define splent (somewhat) as a bony union of the splent bone and cannon bone; Blaine, however, describes it as an "exostosis upon or about some part of the metacarpal bones." If one asks a veterinary surgeon to define it, he will generally describe it as the bony union, &c., and at the same

time call any bony enlargement on the fore leg between the knee and fetlock a splent, and talk about and treat it as such.

Spooner, in his valuable and scientific Treatise on the Foot and Leg, defines it, p. 239, as "a bony deposit situate between the large and small metacarpal bones;" and afterwards, under the same title, deals with bony tumours on other parts of the fore leg. In treating of the splent as defined by himself, he says, p. 239, that the absence or presence of lameness "used to be explained, or rather endeavoured to be explained, by saying that the latter interfered with the sinew, the other did not. The enlargement, however, cannot interfere with the flexor sinews; and it is doubtful whether its proximity to the suspensory ligament is ever a source of lameness." It would very much contribute to perspicuity, if writers would agree on different terms to be applied to things so different in their origin, and many of them in their properties, as splents limited as by Spooner, and the other bony enlargements between knee and fetlock; and for this purpose the first may be called splents, being truly such; any other bony enlargement between knee and fetlock a pseudo-splent. Now, it is pretty evident that a splent cannot interfere with the flexor tendons. But the usual explanation of lameness is not confined to the flexor tendons, but is generally extended to any interference with any tendon or ligament; and this may be true of splents in numerous instances, according to their situation.—But to the question, How do those bony enlargements cause lameness? It may be answered in three ways at least.

1st. By the periosteal inflammation, pain, &c.

2d. By interference with a tendon or ligament or other sensible part.

3d. By increased or aggravated concussion.

The first is common to splents and pseudo-splents; and it is remarkable that Spooner almost confines his explanation of the lameness from splent, and its treatment, to this mode; though it would seem to be with both kinds the most transient and manageable damage.

As to the second, as has been already remarked, splents may effect lameness in a variety of places; and though splents viewed externally when in their usual, i. e. middle place, cannot touch the flexor tendons, yet, with due deference to Spooner's doubt, it would seem that they may be so placed, for instance at the lower end of the splent bone, as may seem even externally to interfere with the suspensor, or a branch of it. But there is another mode, in which it is suggested for the consideration of vets. that they may affect the suspensors. May not the bony enlargement, or the inflammation, extend inwards, and invisibly to the suspensor, or its con-

nexions, and so effect lameness? The writer, three or four years since, returned a high-priced hunter as unsound from splent. The splent was situate very favourably about midway, and was thought incapable of producing mischief. The horse stood his walking exercise for a month without any sign of damage or tenderness on or about the splent; but on his first gallop the splent became tender, and the neighbouring parts in a line with the suspensor above and below swelled, precisely as in an incipient suspensor affection. The symptoms were easily removed by the usual hot and cold treatment, but returned on a second gallop, almost to lameness; this reduced the case to demonstration, and the dealer submitted qualifiedly.

It would seem, too, that the splent may produce suspensory affections by damaging the connexions therewith, without touching the suspensor itself. Now, it is doubtful—and this is suggested as another problem for veterinary solution—whether the neighbouring swellings and tenderness preceding or accompanying suspensory affections are an original damage, communicating disease and enlargement to the suspensor; or whether the suspensor, being first damaged, communicates such damage to the neighbouring parts.

The lumbrici, for instance, as described by Spooner, p. 27, may be first damaged; but the writer only suggests this as a matter for inquiry, feeling himself here getting somewhat out of his depth. Having been recently hit in the suspensory regions from overweighting a well-bred nag, he is led by his observations of the case to offer these suggestions.

The third mode Spooner slightly alludes to, and this mode may account for splents close to the knee being more mischievous than elsewhere. Nature seems to have intended the splent bone as a separate bone from the cannon; and it is obvious that the bony union of the two must increase the concussion, and that in proportion to its nearness to the great centre of concussion, the knee. As bearing on this point, it is important to ascertain whether the union said to take place naturally from age, without an external splent, and without lameness, extends throughout, up to the knee, or ceases short of it. The remarks on Carpitis (*Veterinarian*, vol. xviii, p. 670) bear strongly on this part of the case, and seem almost to have anticipated the writer of this, whose notice was directed to that part of your publication by a veterinarian with whom he was accidentally discussing the point.

Similar considerations are applicable, though not so easily, to the subject of spavin, which has been called splent of the hind leg; but that subject is in such able hands, that even to suggest would be impertinent (*Veterinarian*, vol. xviii, p. 663) in the writer of this, who, though a zealous hippophilist, is, it is needless to add, no vet.

ON THE CERTIFICATES GIVEN BY VETERINARY SURGEONS TO THE PURCHASERS AND VENDERS OF HORSES.

By W. Goodwin, *M.R.C.S., Veterinary Surgeon to the Queen.*

It is to be regretted that the members of the veterinary profession have not been taught to adopt some rules for rendering the certificates they are required to give upon examining horses as to soundness at least somewhat similar in the construction and expression of their opinions, so as to render them more intelligible to the persons who have to pay for them. I am quite aware of the impossibility in attempting to reduce professional opinions to one common standard; but I think that our leading practitioners might meet together, and agree upon some general principles for their guidance that would make their certificates less liable to the censure and ridicule they both merit and incur.

The occurrence is by no means uncommon for a buyer to send a horse to be examined by a veterinary surgeon, and, not feeling satisfied with the opinion he obtains, to send him to another; and on comparing the certificates of the two, and finding them so diametrically opposite in their statements, he finally trusts himself to the warranty of the dealer, purchases the horse, and at the end of six months has had to congratulate himself upon the possession of a sound animal, and the escape he has had in avoiding two *unsound* certificates.

A few weeks ago, as I was travelling in a railway carriage, I heard one passenger who sat next me address another, his acquaintance, by asking him if he had found a horse to his liking in town. The reply was, "Oh, yes; I had bought a very nice one, indeed—one that I really think would have suited me very well; but, of course, I had him examined by my veterinary surgeon, and he sent me a certificate that the horse had some ailment—I forget what he called it—by some extraordinary name, however: but the man to whom the horse belonged prevailed upon me to have him examined again elsewhere, and I did do so, and got a certificate of perfect soundness; but I am no judge in these matters, and should have always fancied something wrong, so I reluctantly left the horse, for I really believe he would have been just what I required." The concluding remark of the listening passenger rather made me blush for the profession of which he little suspected me to be a member, when he said, "I imagine you can get any sort of opinion you desire from these men."

One of our most respectable metropolitan dealers in horse-flesh bought a horse last year, a grey gelding, in a country fair, at a great price, nearly 200 guineas, and sold him to a cavalry officer in town, who sent him to be examined, when he obtained the following certificate :—

"This is to certify, that I have this day examined a grey gelding sent here by ————, and am of opinion that the said grey gelding is lame of the off hind leg, which renders him unsound. He has an enlargement in the spavin place of the off hock. He is five years old.

"A. B."

At the instance of the dealer, another certificate was obtained, as follows :—

"I certify that I have examined a grey gelding for Mr. ————, and I find that he is lame of the near fore leg, and is consequently unsound. The frog of the foot is much broken down by the disease commonly termed thrush, which appears to have existed for a considerable time, and in all probability occasions the lameness, as I do not detect any marks of disease in any other part of the limb.

"B. C."

Not content with these opinions, the horse was examined a third time, to the following effect :—

"I hereby certify that I have this day examined a six-year old grey gelding for Mr. ————, and, with the exception of a slight cold, I do not observe any thing to indicate unsoundness in him. He has slight thrushes in his fore feet.

"C. D."

In spite of these opinions the officer bought the horse, his regimental veterinary surgeon pronouncing him to be sound, as was proved in the end.

Some years ago, my late father bought a thorough-bred stallion for me from a nobleman. I soon found out the horse to be a roarer, and returned him as such. My father requested the noble lord to have the horse examined by a veterinary surgeon, for his own satisfaction; and the following day his lordship sent for my father, and putting the certificate into his hand, filling two sides of a whole sheet of paper, with a long description of the horse making a noise in his breathing in his slow paces, and making none at all when galloped, &c., he said, "Mr. Goodwin, what does all this mean—can you tell me?" "Indeed I cannot," replied my father, "and I advise your lordship to send the horse to another practitioner, with a request to him to certify sound or unsound."

This was done, and the nobleman took back the horse on a certificate as follows :—

"I certify I have examined a brown stallion sent here by Lord ———, and that he is unsound, being a roarer.

"D. E."

Ten years ago the following certificate was put before me, and I was requested by the gentleman who had paid for it to inform him whether it meant "sound or unsound."

"I hereby certify that I have this day examined a bay gelding sent here by Mr. ———, and am not aware of any unsoundness about the said gelding, but observe that he has a scar on the inside of each coronet of the fore feet, occasioned by cutting—a blemish above the off knee—splents on the near fore leg—and prominent hocks in the spavin places: these do not, however, occasion inconvenience in his action. He is five years old.

"A. B."

I knew not what to answer, and, I think it would puzzle any practitioner in our profession, or in the legal one either, to define its meaning satisfactorily.

The following certificate, coming from such authority, about a horse in dispute, I cannot omit publishing, as it gives the opinion of our late Professor :—

"Royal Veterinary College, April 22, 1836.

"Sir,—I am directed by Professor Coleman to say, that he never has and never will give a certificate of the soundness of a horse; but your's is not lame.

"I am, your's respectfully,

"W. J. T. Morton."

If it were necessary, I could produce a great number of certificates that would only prove by their discrepancies the fact, that two veterinary surgeons are seldom to be found pronouncing the same opinion about the same horse: the only part of the certificate that is intelligible is too often, as I can prove, erroneous; I allude to the definite statement as to age, and those who really know the "horse's mouth" are aware of the liability to make mistakes on this point. This subject has really become one that occupies considerable discussion daily amongst horsemen, and for the credit of the profession I should much like to see a better understanding as to what is to be considered by us "sound or unsound." It certainly cannot enhance the character of our now corporate body to have A, B, and C, all varying in material points as to the soundness of the same horse examined by them on the same day.

The dealer is often placed in a very unenviable position : he can neither return nor sell his horse, and he is a loser both in pocket and reputation. I have often heard it stated, that there is no such thing to be found as a sound horse ; but I contend that horsemen know perfectly well what is understood by the term soundness. As to the quibble, that every deviation from nature must be considered unsoundness, such as a splent for instance, (and where is the horse to be found that has not one ?) that only indicates, if such were really the case, the absurdity of requiring a certificate for what does not exist. The acknowledged rules amongst horsemen as to what constitutes soundness are clear enough to the man who only requires that which is fair and right.

Is it not humiliating to every man in the veterinary profession to read the extraordinary nature of evidence adduced sometimes in a court of justice in a horse cause ? Can such exhibitions be considered as creditable ? On the contrary, they only serve to expose a weak point. In the hope, then, that these few hasty remarks may induce others to take the subject into consideration, I have ventured to send you them for publication, trusting you will deem them worthy a place in the pages of your Journal.

I am, &c.

Queen's Mews, Pimlico,
January 1846.

ACCOUNT OF CASES OF DISEASE OCCURRING AMONG DOMESTICATED ANIMALS AT THE EDINBURGH VETERINARY COLLEGE,

From the 1st to the 31st of December, inclusive.

By Professor Dick.

Disease.	Number of Cases.			Deaths.		
	Horses.	Neat Cattle.	Dogs.	Horses.	Neat Cattle.	Dogs.
Abscess	2	...	...	...	...	...
Brain, Disease of (Staggers)	2	...	...	...	...	...
Catarrh and Influenza	20	...	...	...	...	...
Choking	...	2	...	...	...	...
Colic	14	...	...	...	...	...
Constitutional Debility	7	...	...	...	...	...
Distemper	...	...	1	...	...	...
Docking	1	...	...	...	...	...
Diabetes	4	...	...	...	..	...
Diarrhœa	1	...	...	...	...	...
Enteritis	1	1	...	1	1	...
Eyes, Diseases of	4	...	1	...	...	...
Examinations as to Soundness	19	...	...	...	...	...
	75	3	2	1	1	0

Disease.	Number of Cases. Horses.	Neat Cattle.	Dogs.	Deaths. Horses.	Neat Cattle.	Dogs
Disease brought forward	75	3	2	1	1	0
Farcy	1	...	...	...	...	...
Farcy and Glanders	1	...	...	1	...	...
Feet, Wounds and Bruises of, attended with Lameness..	33	...	...	1	...	...
Corns in, with ditto	3	...	...	..	...	...
Laminitis in	3	...	...	...	...	...
Navicular Disease in	8	...	...	...	...	...
Quittor in	5	...	...	...	...	...
Sandcrack in	1	...	...	...	...	...
Seedy Toe	1	...	...	...	...	...
Thrush in	1	...	...	..	...	...
Fistulæ and Ulcers	4	...	...	...	...	...
Fractures	1	...	...	...	...	...
Grease	13	...	...	...	...	...
Heart, Disease of	1	...	...	...	...	...
Indigestion	..	...	1	...	...	...
Lameness in Hip	4	...	...	...	...	...
Ditto in Fetlock	3	...	...	...	...	...
Ditto in Knee	2	...	...	...	...	...
Ditto in Shoulder	1	...	...	...	...	...
Ditto in Stifle	1	...	...	...	...	...
Mammitis	1	...	...	...	...	...
Paralysis of Rectum	1	...	..	...	...	...
Phlebitis	3	...	...	...	...	...
Pleurisy, Pneumonia, and Bronchitis	9	20	...	1	13	...
Roaring	1	...	...	...	...	...
Strangles	2	...	...	...	...	...
Spavin, with Lameness	6	...	...	...	...	...
Splint, with ditto	1	...	...	...	...	...
Skin, Diseases of	10	...	1	...	..	...
Sprains of Tendons, Ligaments, &c.	7	...	...	...	...	...
Stomach, Distention of, from Food	...	1	...	...	...	...
Tetanus	1	...	...	1	...	...
Teeth, Diseases of	4	...	...	...	...	...
Thrush in Mouth	1	...	...	...	...	...
Vomition	...	...	1	...	...	...
Weed	8	...	...	...	...	...
Worms	...	...	1			
Wounds and Bruises, excepting Feet	20	...	1	...	...	...
	237	24	7	5	14	0

General Abstract.

Cases among Horses	237	Deaths in Horses	5
„ Neat Cattle	24	„ Neat Cattle	14
„ Dogs	7	„ Dogs	0
Total number	268	Total number	19

Cured or Relieved 248. Died or Destroyed 19.

Among the cases which have occurred during tho past month, those of disease of the brain may be noticed as possessing some interest. One of these occurred in a young mare, rising four years old, belonging to a farmer near town, who brought her here in consequence of having (after being a few days wrought at light farm work) become affected with, to him, unaccountable symptoms. When made to move, there was extreme irregularity observable in the action of her fore as well as hind extremities, but not more so in one limb than another, which, during rapid progression, caused a peculiar swinging and uncertain gait. The owner was inclined to think that the case was one of injury to the spine; and the symptoms were very similar, in some respects, to those existing in such instances. From the fact, however, that the fore as well as hind extremities appeared equally implicated, it was evident that the disease existed either high in the neck or in the brain itself, most probably in the latter, from the circumstance that no injury could be traced in the spine, throughout its whole extent. There was not any very appreciable abnormal change in the circulation, and the respiration was not affected; the animal also fed well, and appeared lively. From the strength of the pulse, and (in cases of this nature) from the frequency of disease in the choroid plexus and lateral ventricles of the brain, she was bled freely, had laxative medicine, and cooling applications were used to the head, under which treatment she has continued gradually to improve, and is now nearly recovered. The second case occurred in a mare purchased, a few days previously to becoming diseased, by a coach proprietor. She had been put into the parcel-cart as exercise for a few days, before using her for severer work; and one day, while returning from Leith, the driver observed her to become apparently languid and weak, at the same time hanging her head near to the ground, so that by the time she reached nearer home she was with difficulty got into the stable-yard. During the time that the harness was being removed, it required several men to support and afterwards to assist her into the loose box, where she immediately fell down in a state of stupor, in which condition we found her, with the pulse 50, and respiration natural, but apparently possessing little power in the extremities, and quite unable to rise. She was bled freely, had purgative medicine administered, and was well packed with straw. She remained pretty much in this condition until the following day, when, appearing somewhat relieved, she was turned to the contrary side on which she had been lying. This appeared to revive her still more, and she seemed to recover, in some degree, the use of the hind legs, but was still unable to rise. By the third day she had evidently gained strength, and made attempts to raise her-

self. A number of men were called to assist her efforts, and, with considerable difficulty, were successful in enabling her to gain her feet. After being steadied for a long time, she was left to herself, and was able, although extremely feeble on her legs, to stagger about the box. Her head was frequently wetted with cold water, and blisters were afterwards applied along the neck, from behind the ears, which had a beneficial effect. In two days she lay down, and was able to rise with a little assistance. Alterative medicine was given for several days; the purgatives and blisters were repeated as occasion seemed to require, and she is now so far recovered as to be able to take walking exercise.

Diabetes is, as will be seen by the reports, a disease of frequent occurrence here, four cases having come under notice during December. The treatment of this disease has been almost uniformly successful, and has consisted chiefly in the administration of large doses of iodine. This medicine has, for several years, been used here in the treatment of diabetes, and is fully entitled to confidence, although some practitioners are rather sceptical as to its use. It possesses a manifest and almost immediate effect in arresting the intense thirst which is so prominent a symptom of diabetes, and, at the same time, induces a natural condition of the urine and appetite in all those cases in which organic disease does not exist.

Five cases of quittor have come under treatment during December, and although some of them in an aggravated form, they are doing well. There are few diseases commonly considered more difficult to manage than this, which difficulty, in great measure, arises from the variety and peculiarities of tissue and situation affected when the disease exists, and the too often and improper and unscientific treatment pursued for its relief. Without reflecting on the importance and necessity of giving free exit to the imprisoned matter, and of forming depending orifices for its evacuation, as well as of removing all irritants which, if allowed to remain, continually promote its secretion, and induce the sprouting of proud flesh, it is very frequently the custom, with even veterinary surgeons, to introduce active caustics, the effects of which, ultimately, are to prolong the existence of the disease, and to extend its destructive progress, while they are seldom if ever needed, if the principles indicated by nature are carried out in those surgical aids which we can afford, and which are, in reality, the same as those successfully adopted for the relief and cure of inflammation generally. In proportion, of course, to the severity of these cases, is the length of time required for their restoration; but, if this be afforded, very few indeed are there which will not recover, attention being carefully paid to the timely removal, without caustic,

of those tissues which have lost their relation to the system, or of other irritants, which may exist in the sinuses. Stimulating dressings are frequently required, to change the indolent action sometimes existing in these cases; but caustics applied so as to cause extensive sloughing are not needed: they occasion, frequently, considerable destruction of sound tissues, which must be reproduced by the slow process of organization before restoration (often necessarily imperfect from the very use of these caustics) can be effected. In some cases, the use of caustics causes sloughing to such an extent as to expose the coffin joint or bursæ in connexion with the perforans tendon, rendering recovery impossible.

The case of paralysis of the rectum is one of a rather rare nature: it occurred in a dray horse, the property of a brewer. It was stated, when first brought here, that he had been foundered, for which he had been a fortnight under treatment by a smith who shoes the horses belonging to the same establishment; there were not, however, any traces of that disease, and it appeared more likely that the stiffness had arisen from the injury, which was probably the cause of paralysis of the rectum. There was evidently a considerable degree of rigidity of the loins; the tail was carried somewhat to the off side; pressure along the spine of the sacrum caused pain; the rectum was impacted with fæces, the sphincter ani relaxed, and the anus half open; urine frequently dribbled from his sheath, indicating a degree of paralysis of the neck of the bladder, and the horse straddled considerably in his gait. No account could or would be given of any accident which had befallen him; but, from the nature of his work, it appeared probable that, when the cart had been loaded on some occasion with empty barrels, one of them had fallen on his croup or loins, injuring the sacrum, and, through it, the spinal cord and the nerves passing through the sacral foramina, so as to interrupt the normal transmission of nervous influence to and from the parts, the functions of which were impaired. He was bled, a dose of medicine given, the rectum was emptied by back-raking, and occasional clysters were administered to keep its contents in a soft condition. Several plies of hot cloths were laid over the loins and quarters, and were frequently renewed; he was also put on mash diet. When the medicine commenced operating, he appeared greatly improved; but as the dung began to acquire a firmer consistence, the weakness of the parts again became more apparent. A smart blister was, therefore, applied over the sacrum, which, with the medicine, has been repeated, and the horse is now rapidly recovering.

The case of tetanus occurred in a horse belonging to a carter, which had been fired here by one of the students a short time previously for extensive chronic disease of the fetlock joint of the near hind leg. As the animal was of little value, the owner was not inclined to keep him; he was therefore bought for dissection, and after keeping it for a few days, was destroyed. One of the cases of tetanus reported last month as improving is now quite recovered. The other case, although now apparently progressing favourably, has several times, to all appearance, been in an almost hopeless condition, which was occasioned by the horse lying down on four occasions, and becoming much exhausted from violent struggling, first arising in consequence of the accession of spasm, and also apparently in order to relieve himself from his uncomfortable position. The first of these occasions was when, in consequence of there being a mitigation in the tetanic symptoms, the horse was placed in a loose box, in order to afford some relief after the confinement to which he had been subjected in the slings: he either lay down or fell during the night, and, with his legs and head extended, struggled for a considerable time with great violence, which occasioned much irritation, and was attended by profuse perspiration, causing speedily much debility. Although the case was now apparently discouraging, it was determined to raise him and place him again in the slings. He was accordingly hoisted upon his feet by means of a crane, and his former means of support afforded him. He was kept in the slings for some time, being occasionally walked out to favour a return of the natural tone of the muscles; his movements betrayed considerable debility, yet, when in the stable, as the tetanic symptoms had almost totally disappeared, and as he fed well and appeared lively, he was again tried in a loose box, but with a similar result.

Again, on one occasion about three weeks ago, when being walked out for exercise, he unfortunately fell down, and was unable to rise. After some ineffectual attempts to assist him on his feet, it was found necessary to place him upon a sledge, and draw him into the yard, where, having placed him under the crane, he was again hoisted up. From that time till the 11th of the present month (January) he continued to improve, and being on the day mentioned again loosened from the slings, and turned into a loose place, he lay down, and was again unable to rise without assistance. He is, however, improving, and the chief hinderance to his power of raising himself seems to arise from his suspensory ligaments having become injured from long standing, and from the existence of several sores and bruises in various parts of the body, which interfered with the free exercise of muscular power: these,

however, are fast healing, and there seems no doubt but that under careful watching the horse will yet do well. With reference to the medical treatment of this case, it may be noticed, that it has chiefly consisted in the continued administration of laxatives, in such doses as to keep the fæces in an uniformly soft condition. In the one case blisters were applied to the neck, in the other not.

I shall not at present reply to the communications which appear in your last in regard to the number of cases occurring here, and the success of the treatment, in order to allow Mr. Fisher and Mr. Wells time to shew *what right they have to demand from me* ANY *information, or what I owe to the profession;* and Mr. Mayer to give his definition of what broken wind *is*, and what are the symptoms and pathological conditions which give rise to what is called "*broken wind*," instead of quoting from Blundeville and others. It may be, however, as well to state, that I agree with him, that the "word *broken wind is sometimes misused;*" as in such cases as he alludes to, which are merely cases of sub-acute inflammation of the bronchial membrane, or in the other cases that are combined with disease of the heart. When Mr. Mayer has shewn the pathology of those cases which give rise to broken wind as a symptom, I shall then be able to say whether we are considering the same pathological condition or not.

These lists of cases have been sent you in consequence of Messrs. Mayer, Gabriel, and Professor Spooner having reported to the Council of the Royal College of Veterinary Surgeons, that the practice which the students have an opportunity of seeing here is both "*limited and defective.*" When the report of the London College is published, the public will judge where the *student* can see the most extensive practice.

If, as it has been insinuated, the reports which I have sent you of the cases which have occurred here during the past year, and amounting in all to 3543, have acted as advertisements, I have only to state that I have considered it an imperative duty to send them, in consequence of the statements made by the gentlemen already alluded to in their report to the Council of the Royal College of Veterinary Surgeons.

I am, dear Sirs, your's truly,

WILLIAM DICK.

To the Editors of "The Veterinarian."

THE VETERINARIAN, FEBRUARY 1, 1846.

Ne quid falsi dicere audeat, ne quid veri non audeat.—CICERO.

WHILE gentlemen of the law with good reason denounce "horse causes" for their notorious disregard of truth and confliction of evidence, veterinary surgeons are not without reason for feeling dissatisfied at the lack of knowledge counsel are apt to betray on horse concerns in general. It is quite proverbial how little "doctors, parsons, and lawyers, know about horses;" on occasions, however, where actions at law come to be brought involving points altogether veterinary in their character, and dependent upon their issue mainly upon the shewing of advocates whose business it is to sift and explain these points, we do think that the functionaries of the law are in duty bound to enter court prepared for their work. It is all very well jokingly to talk about "the glorious uncertainty of the law;" but to a man who is impelled into its meshes through a conviction of the soundness and justice of his cause, what can be more galling than to find himself vanquished, not so much by the audacious and profligate character of the evidence opposed to him—for that is very apt to over-ride and defeat its own object—as by the lamentable want of knowledge of the true bearings of the case manifested by his legal representatives? Disappointed and vexed at the result, he leaves the court of law muttering to himself—"I had gained more had I pleaded my own cause than by committing it to hands so superficially informed, so one-sidedly prepared on the subject."

The foregoing observations, suggested to us by the perusal of former horse-causes, have been revived in our mind by the one of Collins *v.* Rodway, an account of which appears in our Number for the present month—a trial involving decision upon a point of vast importance to the veterinary world, and one of which, for that reason, we have been at some pains to get the particulars. Nothing could be more masterly, a more clever and complete exposition of the law of the case, than Mr. Jervis's "apprehension" that

his Lordship (the Judge) would tell the jury, the question for their consideration was, "Did Mr. Rodway, in performing his duty as a farrier, bring to the performance of that duty, not by himself, for he is not the working hand who did it, but by the man who did the business for him—did he bring to bear *competent skill and reasonable care* in the performance of that duty?" Having done this, however, and made the most of his strong point of the *law* of the case, how little afterwards was he prepared to make of the veterinary part of the case!—"If he did," continues Mr. Jervis, "from the mere accident which may arise from the *necessary liability* of a nail to turn, from, perhaps, *the uneasy way of a horse standing*, which may cause the accident, or other circumstances"—if he did, "from mere accident," prick the horse's foot, "for that Mr. Rodway is not liable." Now this "mere accident" Mr. Jervis might have proceeded to inform the jury was, from a variety of circumstances over which the smith had no control, *so liable to happen*, that the wonder was horses were not pricked a great deal oftener than they are; and further, that if veterinary surgeons or farriers are to be made liable for the consequences every time a horse is pricked, the sooner they shut up their forges the better. In cases of thin, weak, brittle, or defective crusts, of fleshiness of foot, of splitting of the point of the nail or aversion of it from its course by unnatural toughness or hardness of horn, of bending of the nail in the driving or while it is being clinched up, or else of some sudden start from fright or other cause the horse gives while being shod—we repeat, the cases in which failure may happen, *in the hands of the best and most careful workman*, being so various and many, the only wonder is that the accident of pricking is not a great deal more frequent than we find it to be. And if, we repeat, shoers of horses are to have actions at law brought against them every time an accident of the kind happens, the sooner veterinary surgeons and farriers form themselves into "societies protective" against such persecution the better. No proprietor of a forge can see a horse pricked by his men without feelings of vexation at the occurrence, hardly less in amount than any annoyance or disappointment the owner of the horse may experience; added to which, no doubt, he would feel every inclination to amend the grievance: at the same time,

neither he nor his man can or ought to have *blame* imputed to him, seeing that the accident is one which no skill or foresight would have prevented.

Since the above was written we have received the following remarks on the case in question—of Collins *v.* Rodway—from a gentleman who was present in court during the whole of the proceedings; and, excellent as they are, we gladly insert them as a corollary to our own comments :—

In remarking on the trial of Collins *v.* Rodway, it is not a professional province to inquire into the equity or correctness of the points of law, nor of the soundness of the views of the Judge in the summing up, touching the mere law view of the case; but it certainly is within professional province to remark upon any circumstance which may bear directly on professional points; and in the course of the trial it was elicited that the veterinary surgeon, as such, does not stand very high either as to respectability or scientific knowledge, in the estimation of the gentlemen learned in the law. It is certainly not a subject for gratulation when scientific knowledge, which belongs to, and can only be given by, the veterinary surgeon, is sought to be obtained from mere shoeing smiths*, or their apprentices: but even this is better than pursuing the same course with men of other trades or pursuits, altogether dissimilar. It may be urged that gentlemen at the bar are only pursuing the course for which they are employed; but this only palliates the impropriety; it does not remove it. What would be said if, in an action which involved injury to the foot of a man, and which arose from a presumed unfitness of a shoe or boot, we were endeavouring to ascertain the nature of the injury, its kind, duration, or symptoms, from a mere handicraft shoemaker or tailor?

* Mr. ——— sworn and examined by Mr. Humfrey.
Q. You are a veterinary surgeon?
A. I do practise, but I am not a member of the College.
Q. *You are none the worse for that.* You are a farrier?
A. Yes.
Q. You know how to shoe a horse, I suppose?
A. Yes, I expect I do.

Would not such a course be scouted as the grossest impropriety? Yet, such was the course followed throughout this trial, and, indeed, is but too generally followed in what are called "*horse causes.*" This, bad enough from the bar, was, in the present instance, made worse by the palpable manner in which the Judge, in the summing up, laid great stress upon the evidence of such men; and it was only by the more correct view which the Jury took of the real merits of the case which prevented the establishment of a precedent of the utmost importance to all those who may have shoeing establishments; for, let it but once appear that the shoeing of a horse may be made a pretext for an attempt to gain a sum in the form of damages—or what is more likely to occur, and which did occur in an instance but a short time since, of *extorting* a sum in the shape of compromise—and there will arise plenty of attornies ready to undertake such causes for the sake of the costs, however unclean they may be, and plenty of sharpers ready to try the game in the form of intimidation: for, how few men are there who have inclination, even if they have the means, of standing litigation, which must assuredly, in the event of a successful defence, entail very serious loss, not only of money, but of still more valuable time; to say nothing of the injury it would do to the individual's business generally by the slur thus cast upon his capability.

Whatever may be the cause which has produced this feeling against the scientific acquirements and respectability of the veterinary surgeon, its truth as affecting the body generally is but too often shewn, and it seems as if a fatality was hanging over the veterinary art; for no sooner has a step been gained towards placing it in a better position, than a series of discords spring up, marring any good previously gained. The dissensions which have of late been so rife can only have a tendency towards its increase: how, or by what means, the unfortunate position in which the profession now stands is to be raised to a better, need not be entered upon; but the first step, and without it all attempts will be in vain, is that of union and good-fellowship amongst its members; and it certainly would be an important step if a Mutual Protection Association could be brought to bear.

How much soever Mr. Rodway may be considered to be defending his own invention by carrying this action into court, still great praise is due to him for the manner in which it has been so successfully defended; and we must also thank a Jury who could take so fair a view of the real merits of the question, as to give a verdict in opposition to the tendency of the summing up of the Judge.

Veterinary Jurisprudence.

COURT OF EXCHEQUER, GUILDHALL,

Monday, December 15, 1845,

BEFORE LORD CHIEF BARON POLLOCK AND A COMMON JURY.

COLLINS *v.* RODWAY.

Mr. Humfrey, Q. C., and Mr. James for the plaintiff; Mr. Jervis, Q. C., and Mr. Merewether conducted the defence.

THIS was an action brought to recover compensation in damages against the defendant, for negligence and unskilfulness in the shoeing two horses.

The plaintiff, who is an articled lawyer's clerk, kept or pretended to keep two ponies, which were sent to a forge carried on by the defendant for the purpose of shoeing horses with a shoe for which he has taken out a patent. From the evidence on the plaintiff's side it appears that the facts of the case were as follow:—

A grey pony-mare was sent to be shod on the 16th July, in the evening, after working hours, and was shod by the particular desire of the plaintiff's father; that on the 17th she was driven in a gig with two men in it to Barnet; and it was with great reluctance admitted that for *three miles* she went sound. Nothing was said about her lameness to the parties who had shod her until the 21st. On the 20th, however, the shoes were taken off by an apprentice-boy to a man named Beck, a rival farrier. After the feet had been cut about and poulticed, the pony was re-shod by Beck on the 26th, and afterwards worked. It appeared that subsequently she had been turned out for nine weeks, and was said to have been lame during the whole of this time; but no evidence was produced sufficient to prove this.

The other, a black entire pony, was sent to be shod on the 18th, the day after the grey was stated to have been found so injured by the shoeing. On the 21st the shoes were taken off by the farrier, Beck, and blood was said to follow the withdrawal of two of the nails. It was admitted that this pony's feet were very thin and bad, and that the action was very high. What was done to this pony did not appear, only that he had been under the care of Mr. Field, but for what cause was not shewn, that gentleman not being called on to prove the nature of the malady for which, or at what period, he was placed under his care; and that he was sold for a small sum at Aldridge's Repository some time in October.

It also appeared, that on the 21st July the plaintiff wrote to the defendant, stating that the ponies had both been lamed by the carelessness of the workmen in his employ, and that he should send them to be sold by auction immediately, and enter an action against him (the defendant) for the difference of value; but at the same time dropping a hint that a compromise might be better than exposure in a court of law: this not being acceded to, a writ of action was issued on the 27th, just ten days after the first pony had been shod.

A large number of witnesses were called in support of these charges, but amongst them not one veterinary surgeon or any one competent to give any proper information as to the nature of the injury or of the parts injured.

The allegation that the patent shoe was one likely to produce lameness by its application was, during the course of the trial, withdrawn by the plaintiff's counsel.

For the defence it was contended that the ponies were not lamed by unskilful shoeing; that one was lame before it was shod, and the other was not lamed by the shoeing, but the lameness arose from other causes.

Mr. Jervis, in the course of a very able speech (for the defence), put the real question in a very plain manner:—

"Now, gentlemen, in that state of things, I apprehend his lordship will tell you that there are two questions which will arise; in fact, one question only before we come to another part of the case, in the event of your deciding that against me, and that is this—Did Mr. Rodway, in performing this duty as a farrier, bring to the performance of that duty—not by himself, for he is not the working hand who did it, but by the man who did the business for him—did he bring to bear *competent skill* and *reasonable care* in the performance of that duty? If he did, from the mere accident which may arise from the necessary liability of a nail to

turn, from, perhaps, the uneasy way of a horse standing, which may cause the accident, or other circumstances—for that Mr. Rodway is not liable; I say, he is bound to bring competent skill and reasonable care to bear, and that in the discharge of his duty, if he brings competent skill and reasonable care in proportion, the accident not being occasioned by his ignorance nor neglect, I apprehend that if that be so, the defendant will be entitled to your verdict.

"Now, gentlemen, first of all the question will be, Is there in the peculiar formation of this shoe any thing which would have caused an injury for which Mr. Rodway would have been answerable? My answer to that is this, that the plaintiff knowingly took the horse to a shoer who used the patent shoe; he went to have the patent shoe applied; that patent shoe was at his selection to be used, and therefore that alone would dispose of that part of the objection.

"In trying this case, gentlemen, it is not a case against Mr. Rodway only—it is not a case against every farrier only throughout the whole kingdom, if by accident a horse is pricked—but it is an action against every tradesman who carries on business requiring skill; for, if applying reasonable skill you are to be liable in such a matter as this, I should like to see the position of a man who charges four shillings for shoeing a horse. Is he to be liable for the whole value of the horse, and fixed for the value of the horse? Really this is carrying the proposition too far—a proposition which, I trust, you will not adopt. But if you should adopt it, I do hope and trust you will think that very small damages will be a satisfaction; but I believe that you will be of opinion that there was no want of skill in the matter, and that the defendant is entitled to your verdict."

Witnesses were then called in support of the defence.

And the Lord Chief Baron, in a long and critical summing up, made some remarks on the points of law affecting the matter in dispute:—

"This is an action brought against the defendant, who is a farrier, for unskilfulness in the shoeing of one and the other of these animals. Now, there are two counts in the declaration, and we have been trying, in fact, two causes, for each of those is a separate cause; and when you come to give your verdict, you will have to separate the one from the other, unless you should find a verdict altogether for the plaintiff upon all the counts, or altogether for the defendant.

"Now, gentlemen, the only rule of law that I feel it necessary to lay down upon the subject of right of action in this case is this, —that, if this operation has been performed unskilfully and impro-

perly, no doubt the defendant is liable to the plaintiff for any mischief that may have resulted from such unskilfulness; but he is liable only to the extent to which mischief has been produced.

"Gentlemen, the rule I take to be this—that a person employed for any purpose must bring to the subject matter a reasonable skill and fitness, and he must exercise that reasonable skill and fitness with due and proper care. If he be deficient in the requisite skilfulness, and in consequence of that the operation is performed in a bad and bungling manner, or if, having the requisite skilfulness, he fails to bring it to act, he is liable for any mischief that results from that; but I need hardly tell you that an operation of this sort cannot be considered in the light of an insurance. If you apply to a surgeon or a medical man to cure you of any disorder, he is liable if there is any want of skill or proper care; and I observed, that one of you, gentlemen, asked whether pricking a horse was a frequent accident. I think the answer to that immediate question was, that it was not, at all events, very unfrequent; still that it may happen without any great degree of unskilfulness attaching to it. The operation must resemble that of shaving. If a man undertakes to shave another, he would not be responsible for every abrasion of the skin that the barber might make: it requires a degree of skilfulness and care, and it might be hardly possible to operate upon a certain person without something of that sort taking place; and although an accident may happen, such as in this case, it may be that the foot of a horse was in such a state that it would be difficult to perform the operation of shoeing. Whenever that is the case, you would naturally expect some information given that there were those defects and difficulties, so that the farrier might be made acquainted of the risk he was exposing himself to. You will, therefore, have to judge whether you think there was any want of skill in the operation of shoeing these horses. I own it appears to me that I think it is impossible to doubt as to the fact that there was an actual pricking.

"With respect to the man's skill, he may have done it on this occasion, they coming upon him at night to insist upon the job being done at an irregular hour, he may have done it badly—that was partly suggested at one time. Gentlemen, I must say it appears to me, as a question of law, that that is no excuse. If you go to any place, and call in a surgeon or a farrier, or any person to perform any operation—if the time is inconvenient, and if the light be not sufficient, and if the occasion be not suitable—he is bound to say, 'I will not do it.' If he does it, unless, indeed, he distinctly and explicitly says, 'I do it at your urgent request, but I will not be responsible for the consequences.' Nothing of that sort appears to have come from him. On the contrary, though

there may have been a remonstrance that the man came too late, yet it was done. It appears to me, in point of law, that if a person called upon at an unseasonable time, if he undertakes to do it without declaring he would not be responsible, he undertakes to do it with the same responsibility as he would do at any proper time.

"Now, with respect to the evidence that the mischief could not have continued down to the month of November, I do not think that that affects the question of the verdict, unless you think it shews that no pricking at all had done any mischief. The tendency of that evidence is to shew that the cause of the lameness, from July to November, was either from some other cause totally different, or that there was some other mismanagement."

Verdict for the defendant on both counts.

EXCHEQUER.

Monday, January 12, 1846 *(Sittings in Banco.)*

[From "The Sun."]

Collins *v.* Rodway.

This was an action on the case brought by the plaintiff, who was an attorney's clerk, to recover damages from the defendant for injuries done to a couple of horses while they were entrusted to the defendant for being shod. The case was tried before the Lord Chief Baron at the recent sittings, when evidence was adduced on the part of the plaintiff to prove that defendant had been guilty of gross negligence in shoeing two valuable horses* of the plaintiff, and that considerable injury was inflicted upon the horses by such want of care and attention. Nevertheless, the Jury found a verdict for the defendant, and Mr. Humfrey now moved for a rule *nisi* to shew cause why the verdict being against evidence should not be set aside, and a new trial had. Their lordships, however, all concurred in the opinion that the verdict was not at variance with the evidence, in so far as some of the witnesses protested that the injuries did not arise from a want of care and attention in the shoeing, but rather from a disease of long standing, from which they had been suffering before they came into the possession of the defendant.

The rule was therefore refused.

* These "valuable horses" were shewn in the course of the trial to be two ponies worth together less than £20, one costing £8 or £9, and the other was offered for sale for £10.

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Extracts from Domestic and Foreign Journals, Veterinary, Medical, and Agricultural.

The Parisian Congress.

[From the Lancet.]

In this country the various branches of the healing art are so inextricably mingled, there is such a want of efficient organization, and such a disregard of all considerations but those of personal or party interest, that any thing like the common effort for general good effected by the Parisian Medical Congress appears next to an impossibility. We cannot, indeed, but admit that the state of social organization which allows medical men, veterinary practitioners, and druggists, all to unite for the purpose of strengthening their social position, throwing into the scale of reform their united weight, must be superior to that which exists in Great Britain. Nothing connected with the Parisian Congress more clearly illustrates the estimable value of union between the different divisions of the healing art, than what has occurred with reference to the veterinary section, respecting the labours of which we have not hitherto spoken. This important section of the Congress, after numerous discussions and deliberations, framed a report embodying a number of resolutions. This report was subsequently adopted by the entire Congress, and has been presented to the Minister of the Interior, under whose jurisdiction the veterinary corps is placed, as the expression of the wishes of the Parisian Medical Congress on this subject. We understand that the Report, thus representing the opinions of a medical senate composed of delegates from all parts of France, has been most graciously received. It is evident that, backed by the entire Congress, it has carried with it a weight which no document proceeding from the veterinary body alone could have enjoyed. The sentiments and wishes embodied in the Report being quite as applicable to this country as to France, we shall analyze a few of the most important.

"The veterinary surgeon," says the Report, "living generally in the midst of a rural population, is daily in contact with the peasantry who apply to his science that he may save the animals which constitute a great part of their property. A science so directly applicable to their worldly interests must be appreciated and respected by them, and must give authority to those who possess it. Were, therefore, veterinary practitioners thoroughly acquainted with the true doctrines of rural economy, to inculcate them to the agriculturists of their district, to shew them how to rear cattle so as to preserve their health, and to make them as productive as possible, and to enlighten them as to the means of ameliorating

stock, no doubt but they would be listened to and obeyed. They might, thus, become the benefactors of the locality in which they resided. If this beneficial influence were exercised, not in one spot only, but throughout the kingdom, with harmony and union, under the superintendence of a superior authority, a new era would be opened to agriculture.

"At present," continues the Report, "veterinary practitioners, as a body, are far from being able to render such services to their country, although all, no doubt, are anxious to do so. But in order to fulfil efficaciously the important functions of agents and promoters of agricultural ameliorations, they must be prepared by an appropriate education, which the existing schools are inadequate to give. The means of instruction presented by the three veterinary schools of Alfort, Lyons, and Toulouse, are so limited as to be nugatory in this respect. These establishments require completely remodelling. A sufficiently large extent of land should be added to them to admit of the rearing of cattle, and of illustrating the various improvements introduced into agriculture. They should, therefore, contain a model farm, a stud of horses, flocks of sheep and of other cattle. The duration of the studies should be at least five years. The pupils should follow theoretical and practical courses of agriculture and of rural economy; and particularly courses treating of the hygiene and rearing of animals. The grade of Bachelor of Letters should be demanded of all pupils, and they should *cease to be examined on horse-shoeing*!*

"Thus formed by five years of practical and theoretical studies, those who obtained the diploma of veterinary practitioners ought to be protected by public authority from the quacks who now prey on the rural population, and the exercise of the veterinary art ought to be exclusively intrusted to them. In the army they should be placed on a footing of equality with the military surgeons, with whom their knowledge would entitle them to rank. Their special information might be rendered useful to the country in various ways. Thus, in the chief town of each district, there might be a veterinary surgeon appointed to examine into any epizootic that might appear, and to consult with the civil authorities. It is also to veterinary surgeons exclusively that should be intrusted the inspection of markets; and one or more should form a part of every local council of health or salubrity.

"Measures should likewise be taken to forward the progress of a science which has such influence over the health, riches, and power of the nation. Intelligent veterinary practitioners should be sent, occasionally, into foreign countries, to study the state of veterinary

* Why so? Because (all-important as this branch of knowledge is) it is derogatory to "a Bachelor of Letters."—E. V.

science, and to report on it, and a veterinary section should be established in the Academy of Sciences.

"Lastly, the due activity of all subaltern agents should be secured by the nomination of inspectors-general, chosen from amongst the most distinguished practitioners, who would constitute a kind of superior Council or Board, attached to the Ministry of the Interior. By means of this Board the Government would be able to ascertain, at all times the number of domestic animals, their value, and their sanitary state, even in the most remote districts of the country."

The above slight sketch of the "wishes" of the veterinary section of the Congress not only embodies many desirable improvements, but also gives us an insight into the present condition of veterinary medicine in France. As with us, it appears that the legitimate practitioner is hemmed in on every side by ignorant pretenders, who diminish his income, undermine his influence, and detract from the social position to which his knowledge fairly entitles him. We trust, however, that the manifestation made by the Congress in this direction will not be without a beneficial result, and that the veterinary practitioners of France will eventually obtain that protection which they would long since have enjoyed had the interests of the nation been consulted.

To those who practise veterinary medicine in our own country, the declaration of the wishes of the French veterinary surgeons must be a matter of great interest. It shews them the path which they ought to follow to attain that scientific and social position to which they are aspiring. No honours would be too great for men who conscientiously accomplished the task so nobly traced by the veterinary members of the French Congress.

Essay on an Aphthous Affection which prevailed among Cattle in the Canton of St. Avold (Moselle) in 1841.

By M. Reynal, *V.S.*

[Continued from page 58.]

Contagion and Non-Contagion.

To treat of diseases that some persons consider to be contagious and others regard as non-contagious, is to attack a subject surrounded by difficulties, and one which it is often almost impossible clearly to explain. However complete and self-evident may

be the facts which he brings forward in support of his opinion, the author will not fail to be criticised, cavilled at, and misinterpreted. We are fully convinced that in more cases than one it is the having this fear before their eyes that has prevented persons who from long and practical experience, and a habit of judicious observation, are fully capable of deciding the question, from venturing to enrol themselves under the banners of either party. It is not, however, our intention to be deterred by any such considerations, but rather to call upon those who are actuated by a love of science and a sincere desire for the promulgation of truth, to criticise our writings. Acting on this determination, we shall proceed to state our opinion, the result of careful study and of all the facts bearing on this subject.

We shall commence by citing the opinions of the numerous veterinarians and medical men who have also studied this question.

Some regard aphthous affections as contagious. Of this number are Michel Sagar and Baraillon*. The former states that they are communicable to men and animals. Huzard†, Krafft‡, de la Hollande, and Lamberlicchi§, are also contagionists.

Without wishing in the slightest degree to impugn the veracity of these authors, we must say, with Messrs. Girard, sen., and Delafond, that their opinions are supported by cases too vague and of too little authenticity to be implicitly accredited.

The contagiousness of aphthous affections has very recently been admitted and attested by Messrs. Fabre‖, Maret, and Levrat¶. They have been induced to believe in the possibility of contagion from immediate contact with diseased animals by the results of the inoculations which Saloz attempted in 1810, by order of the Swiss government**.

M. Delafond, in his police sanitaire, expresses the same opinion, although his attempts to produce the disease by inoculation were unattended with success.

Others, and by far the greatest number, entertain doubts. Among these, Huzard, sen., in his "Précis sur l'Epizootic de la Vallée d'Auge," has retracted the opinion advanced him in "Les Instructions Vétérinaires." Saintin, without allowing these affections to be contagious, does not venture to assert that they are not

* Analyse de Huzard; Instruc. Vet. loco citato.
† Idem.
‡ Police sanitaire de M. Delafond.
§ Recueil; Analyse de M. Girard, p. 350.
‖ Recueil, 1838, page 653.
¶ Journal des Connaissances utiles, tom. ix.
** Police sanitaire, page 742.

so*, and Professor Verrier, Leschevin, considers the question of contagion doubtful†.

Others again, as Lafosse, jun., and Toggia, do not give an opinion either way.

Among the non-contagionists is M. Mathieu, of Epinal, who studied this epizootic at various periods among the Vosges, and did not observe a single case of contagion‡.

A man on whose opinion every reliance may be placed—one who was an extensive and observing practitioner—the learned Girard, sen.—collected a whole host of cases in 1810, none of which tend to the support of the doctrine of contagion§.

Tessier, in his Treatise on Merinos, expressly states that sucklings do not communicate the disease to the mother‖.

The cases reported by all the numerous veterinarians of the south, that studied this disease in 1839, speak in favour of non-contagion.

Lastly, the Consul of Health at Paris, in his report to M. the Prefect of the Seine, says, that "the contagiousness of the disease has not been proved¶."

Previous to entering into any examination of the merits of these several opinions, we will take a hasty survey of the observations of those authors who fancied that they discovered some analogy between aphthes and cow-pox.

Led by this belief, in 1818, many medical men made various unsuccessful attempts to inoculate human beings with the matter taken from the vesicles**. In 1834 Dr. Casper, having observed an aphthous epizootic with eruptions on the udder of a cow, vainly endeavoured to inoculate an infant with it that had not been vaccinated††.

In 1835 an aphthous epizootic of the hoof prevailed in Berlin, which was complicated with eruptions on the udder of young milch cows, and this was termed false cow-pox *(falsche poken)*, (M. Rayer, *loco citato*). At the time of the epizootic of 1839, Dr. Emery vaccinated four children with matter taken from

* If we peruse Saintin's work on the "Correspondence of Fromage de Feugré," we shall find that he was not in doubt, but feared openly to attack received opinions.

† Police sanitaire. We regret that we have not been able to obtain the original memoir of Verrier, who, we are convinced, was of the same opinion with Girard, sen., who was studying the aphthous epizootic at the same period.

‡ Recueil, 1839, page 21.

§ Recueil, 1827, page 362.

‖ Traité sur les Merinos, page 329.

¶ Journal des Veterinaires du Midi, page 376.

** Voir le travail de M. Rayer. Recueil, 1839, page 142.

†† Idem.

aphthous vesicles; and no eruption nor other effect was produced*. Messrs. Rayer and Bousquet inoculated a child, which became feverish on the third day, and subsequently a pustular eruption similar to that of *herpes* came out; but all these symptoms rápidly disappeared†. According to M. Londe, a similar inoculation of a child produced an eruption on the face; but what was the nature, and what the characteristics of this eruption? M. Reynal merely relates the circumstance, but enters into no details‡.

Until 1840, so far as we know, science did not possess any authenticated document that could at all induce a supposition of an identity between aphthes and cow-pox. The most celebrated authors have not observed it, and we are not aware that any one has said more than that in cases where aphthous vesicles have broken out on the teats they have caused the development of pustules on the hands of those who regularly milked the cows. These historical data, combined with the fruitless attempts at inoculation, remove all kind of similitude between the two affections.

There are, however, some few rare cases of aphthous epizootics that present a variety of eruption on the teats not so very unlike the vaccine or cow-pox. Our talented veterinary brother, M. Levigny, gives us a striking and remarkable example of a case of this kind§: we shall give his own words previously to stating our own impressions on the subject.

"In many herds of cattle the teats were but slightly or not at all attacked. The vesicles of the teats are of a *whitish hue, transparent, and crystalline in the centre.* After they have been out some little time they become *yellow,* and subsequently *red all round the edges.*"

Let us pause for a moment to consider these physiognomical characters which M. Levigny has assigned to the *pustules on the teats.* Not only are they not the same, but there is a considerable difference between them and those of the aphthous phlyctænæ. In these latter M. Levigny agrees with his predecessors, and finds no trace of this *crystalline appearance,* or *yellow hue,* or *areola,* which are all characteristics of the pustules of small-pox.

"These vesicles," continues M. Levigny, "go through the same phases with those produced by the vaccine virus, and which they appear to resemble in all points. One fact that tends to prove this, and that almost invariably occurs, is that a great number of cows belonging to different herds have communicated the same pustules to the hands of persons who have been in the habit of

* Recueil, 1839, page 142.
† Idem.
‡ Idem.
§ Recueil de Médécine Vétérinaire, 1842, page 774.

milking them, and who happened to have any cracks, cuts, or excoriations on either the hands or arms. It ought to be borne in mind, that it was only in persons who had never been vaccinated that these vesicles or pustules were developed to such an extent as to become confluent. In individuals who had been vaccinated, the appearance was confined to little red spots, and a slight itching." A case thus authenticated can leave no doubt as to the existence of cow-pox in the course of the apthous epizootic observed by M. Levigny, nor, at least, of some affection bearing a very great analogy to vaccine.

We must, however, point out an omission in the valuable paper by M. Levigny, an omission the more important, since it might, perhaps, have at once explained the cause of the contagion in some cases, and the non-contagion in others. Thus, for example, is it rational to admit:

1st, That aphthæ, accompanied by variolous pustules on the teats of cows are possessed of contagious properties.

2d, That the herds (the greater number, according to M. Levigny) that had only been attacked with the *pure and simple aphthous epizootic* had not communicated it to other animals.

We appeal to the recollections of our talented brother veterinarian, and beg him, in the name of the best interests of science, to state, in the *Recueil*, whether the facts of contagion which he observed and has recorded have not been derived from subjects exhibiting the variolous pustule? His candid answer will serve both veterinary medicine and the public hygiene.

To return: Thus it is seen, that there are three distinct parties: those who consider aphthous affections to be contagious; those who do not absolutely deny the contagion, or admit that it might exist under certain circumstances; and those who do not believe the disease to be contagious.

Being extremely desirous of elucidating this question of sanitary police, we have made it the object of an attentive and conscientious examination. We have collected a number of cases that appear to us so positive, so conclusive, that they who peruse them will no longer hesitate, with us, to join the non-contagionists. The difference of opinion existing on the subject does not appear to us at all inexplicable; nor is it remarkable that authors should have attributed contagious properties to aphthæ appearing in concert with certain typhoid or *charbonaceous* affections, or that they should have been thrown into doubt when they saw them presented to their eyes under the form of phlyctænæ on the mouth or feet.

The former phenomenon is likely to have presented itself more than once, at a period when the land was partly uncultivated, and

partly marshy, and unwholesome; at a period when the animals were abandoned, without any care or treatment, to the efforts of nature alone. The diseases prevailing at such a time must necessarily derive a certain degree of malignity from such a deplorable state of things, and be attended with certain complications now no longer to be seen. This view is, we think, fully demonstrated by the analysis already given of some passages in ancient authors. If further proofs are required, we would add that, since agriculture has become so greatly improved, and veterinary knowledge disseminated throughout the country, those devastating epizootics which formerly committed such fearful havoc throughout Europe are no longer heard of.

After reading the works of old medical authors, we become, if not wholly convinced of, at least very much disposed to believe in, the non-contagiousness of aphthous affections; and this belief, especially when we have not had an opportunity of personally observing them, appears corroborated by their sudden appearance in a great number of animals, by their rapid progress, and by the type peculiar to epizootic and contagious affections. These are, we must confess, characters that may, at first sight, impose on a casual observer, or one who merely judges from external appearances; but they cannot influence the opinions of those who possess any physiologico-pathological knowledge. The thing is so self-evident that, from the time veterinary science shook off the yoke of ignorance and prejudice, and included in its domain the various branches of natural history, doubt has taken its flight from nearly every mind. Messrs. Fabre, Maret, and Levrat are the only individuals among all our veterinary cotemporaries who have positively asserted that these affections are in the highest degree contagious. According to M. Maret, contact with the diseased animals is by no means necessary: any man who has entered an infected stable is capable of carrying contagion to distant places.

Without having the least intention of casting any imputation on the veracity of our brethren, we must be permitted to doubt whether the subtilty of the aphthous virus can be so great as to enable it to impregnate the garments of those persons who tend on the diseased animals. And, admitting this to be true, a practitioner ought, most explicitly to develope all the circumstances and facts of cases on which he pronounces a positive opinion. To state, as M. Maret does, that an affection is contagious *because all the animals in a certain stable were attacked by it*, although it was first developed in only one, is no proof of great pathological powers. Why should the causes act on one animal in preference to another? Why should they have spared or at-

tacked only animals bred together, and subjected to the same regimen? Lastly, why, as they all fared alike, should they not all be affected alike?

M. Fabre, of Geneva, only admits of contagion from actual contact with diseased animals. He confesses that there is no proof that it can be effected by aëriform emanations, or the vapours that escape from the cutaneous surface.

Perhaps the aphthous diseases observed by M. Fabre were attended with certain peculiar characteristics—certain epiphenomena, such as were remarked by M. Levigny in France, and M** in the epizootic that prevailed in Berlin in 1835. The first of these gentlemen has described actual vaccine pustules; and the second, eruptions of pseudo-cow-pox *(falsche pocken)*. In all future epizootics it will be most important to examine whether, in some cases, they may not be complicated with, or have put on the character of *pseudo vaccine*, or *vaccinöide*, which will then explain the contagious properties.

In the course of the apthous affection that we observed, we did not meet with a single doubtful case. All plainly evinced *non-contagion*.

We will now proceed to report some of the principal ones:

Case I.—M. Erkman, butcher, at St. Avold, had a cow, two oxen, and a horse, in one small stable. One ox and the cow were very seriously attacked; the other animals remained perfectly healthy. They all fed out of the same manger.

Case II.—M. Altmayer had milch cows, draught cattle, and oxen for fattening, all in one large stable. Some of them were attacked, but no sign of contagion was manifested, although all the animals were in conditions that would pre-dispose them to have contracted it if it had existed.

Case III.—M. Altmayer, who is without dispute one of the greatest agriculturists of the Moselle, and who is, moreover, a judicious observer and a man that has devoted himself to the improvement of cattle, has twice observed this epizootic among his oxen and pigs, and is convinced of its non-contagiousness. He never takes any precautions with regard to the healthy animals, and most of them have escaped the disease.

Case IV.—This is a very remarkable one. It did not come under our own observation, but was communicated to us by M. Altmayer, who is fully entitled to the confidence of our readers. A sow, that was just about to litter, was violently attacked with aphthous fever. Its sufferings were so great that it could hardly move, and, in consequence of this, three of the little pigs were smothered. The others remained with the mother throughout the proper period, without contracting any disease.

CASE V.—On the 5th of October, M. Erkman shewed me a pig, the mouth, snout, and feet of which were covered with aphthous vesicles. It was along with sixteen other pigs, and ate with them; but no other of all that number shewed the least symptom of similar disease.

CASE VI.—This same person had twenty sheep, four of which were attacked about the same time; but although lodged in the same stable, eating out of the same trough, and undefended by any prophylactic precautions, not one of the others took the disease, nor did it attack some goats which were kept with the flock. The herdsman drove the whole lot of pigs, sheep, and goats, *pêle mêle*, into the meadows every day. Some were diseased, others were sound; but there was no appearance of contagion. We could in addition cite a number of cases which have either come under our own observation or have been extracted from the records of the long practical experience of M. Casset, a veterinary surgeon who treated the aphthous affection of 1839, and never remarked a single case of contagion. We have, moreover, interrogated numerous farmers and cattle owners, and they all deny the existence of contagion.

We have endeavoured to inoculate sheep and horses, in different parts of the body, with the matter taken from the most recent pustules; but our attempts, although again and again renewed, have invariably proved unsuccessful.

Alteration of the Milk—Use of it.

We have not remarked that the use of the milk has proved injurious to either men or animals. We knew a great many families who consumed the whole of that which was produced by the diseased cows, and without the slightest ill effects following. We used some ourselves for eight or ten days without experiencing the least inconvenience, although the cow by which it was furnished was severely diseased.

Towards the latter part of the second stage, in cows that had a great number of vesicles on the mouth, lips, feet, and teats, and that had fallen away sadly in a very short space of time, the quantity of milk was found to have diminished one-half, and that which was left was less oleaginous, and turned sour very quickly. But we are quite sure that it possessed no prejudicial or contagious property. We cannot, therefore, agree with M. Delafond, that "the milk is unfit for the use of man*." We dwell upon this point because the learned Professor has, it appears to us, been wanting in

* Police sanitaire, loco citato.

his usual caution when he thus hazards such an assertion, unsupported by proper proofs. He did not sufficiently reflect that his name bears great weight in medical affairs, and that he is constantly liable to be summoned by the ministerial authorities. What a serious responsibility would rest upon him if some municipality should, in faith of the opinion of the learned Professor, prohibit the use of milk derived from aphthous cows! What a serious effect such a measure would have upon agriculture, upon local industry, and upon commerce in general, in those districts whose sole or chief riches consist in milk and the produce of milk!

These united considerations impose on us the duty of searching into the annals of science for facts that could have given rise to M. Delafond's opinion. We find none worthy of the least shadow of confidence. It is Michel Sagar who states that it has not its natural sweetness or consistence, and that it communicates the aphthæ to men and animals. And a veterinarian in the environs of Lyons has made the same remark.

We are aware what reliance can be placed on the opinions of Sagar; and as for the other individual, we regret that it is not in our power to give credence to his remarks.

In order to prove to M. Delafond that we are incited solely by the interests of science and truth, I will furnish him with facts of more value than those quoted in his "Police Sanitaire."

Berbier, jun., in the "Memoires de la Société Centrale d'Agriculture," says that some persons who have made use of the milk of diseased cows, and some pigs which were fed on it, have been attacked with the disease*.

In 1834, when the aphthous epizootic prevailed in Germany, several veterinary surgeons, and Messrs. Wenderburg, Filgner, and Lehnard, state, that they saw many cases in which this disease was communicated to human beings simply by the use of the milk of diseased animals†. About the same time three German veterinary surgeons, Messrs. Hertwig, Mann, and Villain, wishing to ascertain whether the milk of aphthous cows was actually capable of inducing the disease in the human being, made the following experiments:—

The cow chosen had been suffering under this disease for five or six days, and was seriously ill. Each of these veterinarians slowly drank a pint of warm milk. On the 27th, 28th, and 30th of the same month (July) they repeated the experiment.

On the 28th M. Hertwig experienced shiverings, fever, heat in the mouth, and an itching sensation in the hands and fingers. On

* Mémoire de M. Rayer, *Recueil* 1839, p. 140.
† M. Rayer, loco citato.
‡ M. Rayer, loco citato.

the 2d of August the buccal membrane swelled; on the 3d the edges of the tongue, the lips, and internal surface of the cheeks became covered with little vesicles, the largest of which was about the size of a pea. They were of a yellowish white, and contained a whitish fluid matter. Other vesicles of the size of a grain of millet were developed on the hands and fingers, and occasioned much itching. On the 4th and 5th the vesicles of the mouth increased in size, and broke on the following days: the fever soon afterwards disappeared, the scabs dried up, and the epidermis detached itself from the parts affected about the 20th of August.

Messrs. Mann and Villain were not so severely attacked as M. Hertwig, but on them there was an eruption of little vesicles on the buccal membrane.

Of these facts M. Delafond is doubtless ignorant, since no mention is made of them in his "*Police Sanitaire.*" At the time that was published, he was only able to refer to Michel Sagar and the veterinary surgeon in the environs of Lyons, in support of his opinion.

On the authority of facts thus slightly authenticated, we would again ask how M. Delafond could suffer himself to be thus imposed on, while numerous talented veterinarians had from personal observation deduced a diametrically opposite opinion. Those cases reported by himself, and extracted from the writings of Toggia and Mathieu, the former of whom studied the disease in Italy, and the latter on the Vosges, both talented and conscientious men, are they not of a nature to inculcate in his mind an opposite conviction?

Now, lest M. Delafond might turn against us the weapons we have furnished him with by reporting the cases of the German veterinary surgeons, we will next proceed to examine them. And, first of all, let us oppose to the facts stated,

First, those with which we are personally acquainted, those collected in numbers during the prevalence of the epizootic which we ourselves observed;

Secondly, those related by M. Rayer, M. Fobre, and M. Levigny, who all testify to the innoxious qualities of the milk. According to the last-named gentleman, it was even more creamy.

Thirdly, those last, and most conclusive of all, given in the Report to M. le Préfect of the Seine by the Consul of Health at Paris. The following is a summary:—

"The milk of diseased cows, considered with regard to its effect on the health of human beings, does not appear to be productive of *the slightest inconvenience*, and all examinations of it, whether chemical or microscopical, have not been able to trace any characteristics that might lead to the fear that its effects would be pernicious."

We have already remarked, that the German veterinary surgeons were the first who discovered that aphthous diseases were complicated with *eruptions on the udder*, which they denominated false cow-pox *(falsche pocken)*. Those of 1834-5 were chiefly remarkable for this characteristic. Is it, then, impossible that Messrs. Hertwig, Mann, and Villain experimented not with the milk of a simply aphthous cow, but with that of an animal attacked with a species of vaccinoid affection, or with an enzootic that had taken on a certain form?

In conclusion, our researches, in conjunction with those already elicited, prove the innoxiousness of the milk; and if, in some cases of peculiar malignity, it becomes altered, the alteration is never so great as to render it injurious to men or animals. Government must not therefore, relying on the opinion of M. Delafond, interdict the use of this produce. Such an interdiction would amount to a public calamity.

Recueil de Médicine Vétérinaire, March 1845.

AGRICULTURAL ASSOCIATION.

To the Editors of "The Veterinarian."

Gentlemen,—I BEG to acquaint Mr. Flowers, the Secretary to the "Farmers' and Graziers' Mutual Cattle Insurance Association," that the remarks I made in THE VETERINARIAN of December last, respecting the said Association and the veterinary profession, were on account of the conduct experienced by Mr. Cartwright from the Inspector of his district. I had no occasion to doubt the accuracy of his report, consequently I thought it a favourable opportunity to make known to the public that it is not agreeable to the feelings of the country veterinarian to be "ridden over rough-shod" by the "Mutual Association," and to resist, as much as possible, the encroachment it is likely to make on our practice, before it (the Association) is generally established. However harsh the Association may think me towards it, I feel it a duty, living in an agricultural district, to come to a proper understanding with it at once. Although Mr. Shaw has put me right, as he states, on a matter of fact, by recording an instruction given to the Inspectors of the Association,—(viz. "The Veterinary Surgeon: The object of the Association in appointing veterinary surgeons is not for the purpose of giving medical advice in cases of illness, but to decide the propriety of the course of treatment which is being pursued with sick stock when the Inspector questions the correctness of it, &c. &c.")—he has by no means satisfied me

with these instructions, as they evidently allow the owner or blundering farrier to attend insured stock: if not, why is it stated that the veterinary surgeon is not to give advice in all cases of illness, but to decide the propriety of the course of treatment that is being pursued with sick stock? I would ask Mr. Flower, by whom is this treatment pursued, if not by the regularly educated veterinary surgeon? His answer must be, by the owner, or whom he may choose to call in. We have been making strenuous efforts to prevent empiricism, but this regulation will encourage it to a fearful extent. It is my decided opinion that the Association cannot make its rules too stringent. It would prevent disputes, and cause a friendly feeling to exist between the insurers and insured.

In conclusion, I hope the Association will correct and revise the instructions I have previously alluded to, and which will, I doubt not, be for the mutual good of the Association, ourselves and the Public.

Stratford-on-Avon, Jan. 19, 1846.

To the Editors of "The Veterinarian."

Gentlemen,—In the number of THE VETERINARIAN for October, appeared a letter from a student of the Royal Veterinary College, in which a wish was expressed that the students might have an opportunity of displaying their abilities by examination on the several branches of their studies, and thus obtain some substantial remembrance of their talents when pupils, which I believe, to a limited extent, such chances they might (if they felt inclined) have long ere this embraced.

It was not, however, until I had obtained my diploma that I was informed that one or two prizes might have been competed for: it appears, therefore, that publicity only is requisite for such a purpose, in order that they may be annually carried off.

The system of distributing prizes, I am sorry to say, is not without its faults, interest and partiality deciding upon whom the honour of carrying off the prize belongs; and, lastly, the obtainer's conceit being frequently raised to a very high pitch, causes a discontented and envious spirit to prevail amongst his fellow students, so that a boon of this kind is not without its attendant evil.

I have written these few lines to acquaint students, that it has long since been the custom of the College to offer prizes for competition amongst those similarly situated as himself.

I have the honour, gentlemen, to remain,

Your's very truly,

M. R. C. V. S.

THE

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LAMENESS.

By W. PERCIVALL, *M.R.C.S.*

[Continued from p. 67.]

SPAVIN.

THE DERIVATION of our word *spavin* is involved in some doubt. Blundeville, whose definition of it is perfectly unequivocal, calls it "the spauen," and informs us that the Italian name for it is *spauano* or *spauanagno**. In Spanish it is called *esparavan*†. Of our own lexicographers, one derives it from the Greek σπάσμα, or from the Latin *spasmus*‡; the catch-up of the spavined limb in action being regarded, it would seem, as *spasmodic:* another from the old French word *espavent*‖, the modern French name for spavin being *éparvin;* while a third derives it either from the French adjective *épars*, or from the Latin one *sparsus*§, so called from the spavined horse being supposed to go with a *straddling* gait.

Shakspeare has introduced the word into two of his dramatic pieces. His fantastic description of the nag upon which "the mad Petruchio" was seen coming to claim his bride, will never be forgotten:—

———"His horse hipped with an old mothy saddle, the stirrups of no kindred: besides, possessed with the glanders, and like to mose in the chine; troubled with the lampas, infected with the fashions, full of windgalls, *sped with spavins*, raied with the yellows, past cure of the fives, stark-spoiled with the staggers, begnawn with the bots; swayed in the back, and shoulder-shotten."

* The four chiefest Offices belonging to Horsemanship, &c. &c. By Master Blundeville. 1608.

† Diccionario de la Lengua Castellana. *Madrid*, 1732.

‡ Skinner and Lemon.

‖ Johnson, Todd, and Richardson.

§ Thomson's Etymon of English Words. *Edinb.*, 1825.

Again, in his play of Henry VIII, the bard has used the word in his caricature account of the gait some English gallants had acquired by their travel in France :—

> " One would take it,
> That never saw them pace before, *the spavin*
> And springhalt reigned among 'em."

THE DEFINITION of spavin, casting away all old and fanciful notions about the disease, ought in propriety to be one consistent with our present improved state of pathology. For a definition in accordance with the commonly received or popular ideas of spavin—with, in fact, what we actually *see* of the disease—we can hardly have a better than Blundeville's :—" Spavin is a great hard knot, as big as a walnut, growing in the inside (meaning *inner* side) of the hough, hard under the joint, nigh unto the maister veine, and causeth the horse to halt." Defining it to be " an exostosis" or " a deposit of bony matter" upon the inner side of the hock, as our modern writers in general have done, is surely little improvement on Blundeville's definition.

Unfortunately, spavin is one of those appellations in our veterinary nosology which has not only been applied to diseases of opposite natures, but has received different interpretations from different writers: thus, Blundeville has one chapter treating " of the drie spauen," another " of the wet spauen or through spauen;" whereas Solleysell makes the dry spavin synonymous with springhalt, calling the bone spavin, *ox spavin*, " because old oxen are commonly subject to it, and have it extremely big." In our own day we are constantly hearing of *bone spavins*, *bog spavins*, and *blood spavins*. Well might Hurtrel D'Arboval say—" La science vétérinaire plus qu'aucune autre, est encore embarrassée d'un patras indigeste de mots insignificans ou impropres, inutilement employés les uns pour les autres, et une judicieuse réforme à cet égard est vivement desirée." For my own part, I would fain discard the word *spavin* altogether from our nosology, and in its place introduce some appropriate names for the three or four diseases it at present is used to denote: such however is the attachment for old or received appellations, such the prejudice against new ones, that I must confess I lack courage to embark in so ungracious an undertaking. One thing, however, I must do, and that is, circumscribe the meaning of the word *spavin*, whenever and wherever I may make use of it, to that disease of the hock commonly called *bone spavin ;* in which sense, that I may render my definition at once sufficiently comprehensive and characteristic,

I DEFINE SPAVIN TO BE an *exostosis* of the hock, commonly located and detectible on its inner side, whereby bones before move-

able become cemented and fixed together, and which is sometimes productive of caries of the articular surfaces of one or more of the joints of the hock.

THE SITE OF SPAVIN is the antero-inferior part of the inner side of the hock, immediately beneath the prominence of the joint below. Why spavin should grow upon the *inner*, and never—or but very rarely indeed—upon the outer side of the hock, there are two satisfactory reasons:—one is, that the inner sides of the limbs are nearer to the central line of gravity than the outer; the other, that, from the arrangement of the cuneiform bones, the hock joint is so constructed that the inner metatarsal bone is impressed by the superincumbent weight more forcibly, and consequently is compelled to yield or descend to a greater degree, than the outer bone. Such a phenomenon as a spavin on the *outer* side of the hock is all but unheard of: I am not saying it never occurs, nor indeed am I quite sure it would be called a spavin if it did: when any thing of the kind does happen, it is commonly the result of injury. Solleysell mentions something of the kind, and calls it a *jarde* or *jardon*. Spavins may present themselves simultaneously in *both* hocks: commonly, but one hock is affected, and I do not know that either in this respect manifests any preference over its fellow.

Causes of Spavin.

These I shall consider under the heads of *predisposing* and *exciting*:—

PREDISPOSITION TO SPAVIN may be either *constitutional* or *local:* in the former case, lying in breed or constitution; in the latter in some peculiarity in the formation of the hock, or in the use made of it. Solleysell speaks of spavins being *hereditary;* though Gibson's interpretation of this is "natural weakness." In a paper from Mr. Carlisle, of Wigton, Cumberland, read before the Veterinary Medical Association, and published in THE VETERINARIAN for 1839, the writer says—"Hock diseases are often hereditary. I have known the progeny of some horses very much disposed to spavin; others inherit a tendency to splents, ringbones, &c. The peculiar formation of the parts, inherited from the parent, render them susceptible of those diseases from causes that would make little impression on other horses."

For my own part I am very much disposed to believe in the existence in the system of what I would call an *ossific diathesis*. I have most assuredly seen unbroke colts so prone in their economy to the production of bone, that, without any assignable outward cause—without recognisable injury of any kind—have, at a very early age, exhibited ringbones, and splents, and spavins. There

might have been something peculiar in the construction of their limbs to account for this; at the same time there appeared a more than ordinary propensity in their vascular systems to osseous effusion. Growing young horses, and particularly such as are what we call "overgrown," may be said to be predisposed to spavin, simply from the circumstance of the weakness manifest in their hocks, as well as other joints. When horses whose frames have outgrown their strength, with their long and tender limbs, come to be broke—to have weight placed upon their backs at a time when the weight of their own bodies is as much as they are able to bear—then it is that the joints in an especial degree are likely to suffer, and windgall and spavin to be the result. Indeed, under such circumstances, spavin, like splent and other mutations of soft and elastic tissue into bone, may be regarded as Nature's means of fortification against more serious failures.

THE HOCK MOST DISPOSED TO SPAVIN appears to me to be the compact short-pointed hock which is placed at the extremity of a short muscular thigh, and upon the top of a lengthy leg. This is the kind of hock we frequently see in hunters of good repute, and in hackneys valued for their trotting powers; and consequently there may be something in the *work* the hock is put to, as well as in its formation. We do not so frequently observe spavins in race-horses, and horses that have lengthy blood-like quarters; neither are "sickle hocks" nor "cow hocks" thereto disposed: this may arise from their experiencing less concussion than hocks of another description. After all, however, there is no hock of any form or kind that can be said to be exempt from spavin; and many spavins will be found referrible to injury which would probably have produced them in any hock whatever. The horses of the cavalry are of a description which, taking them as a body, are disposed to spavin; and, formerly, when the manege and drill exercises were a great deal more violent and trying than they are at present, a great number of spavined horses might be found among them. Since, however, the pace has become moderate, and the halts less abrupt, and more time has been given to the cavalry recruit horse for the evolution of his natural powers, the disease has much abated in prevalence.

THE EXCITING CAUSES OF SPAVIN, after what has been said concerning the predisposing, will appear to be fairly inclusible under two general heads:—one being, extension, strain, sprain, or laceration of the fibrous tissues of the hock; the other, concussion of its joints. Hard galloping or hard trotting, and sudden pulling up—springing into the leap or jump—pesading or croupading upon the haunches, heavy tugging draft, &c.;—these are the actions most likely to cause such injuries, and they will be,

cæteris paribus, the more likely to occasion them, the greater the weight the horse has at the time upon his back—under more than he is able well to carry in rapid progression, or to produce spring of the body or leap with. Mr. W. Goodwin, many years ago, made the remark*, and he was confirmed in it at the time by the observation of the late Mr. Boutall, that curbs of which horses were not completely cured not infrequently led to the production of spavins. We find old writers on farriery ascribing spavins to *blows:* so unlikely, however, is such a part as the inner surface of the hock to receive a blow, and so varied would be the situation of spavin (which we find is not the case) were it produced by blow, that there needs no hesitation in declaring such an assertion has been made without foundation—hypothetically.

Symptoms of Spavin.

These are in general plain, simple, and unequivocal. The horse manifests lameness in one of his hind limbs, and on examination a circumscribed spheroid tumour, of the magnitude of half a walnut or more—"a jack" as a spavin is often called by dealers—is evident enough both to the sight and feel of the man practised in such matters. Lameness, however, the effect of spavin, may be present without any detectible tumour: on the other hand, there may be a tumour, even of large size—"a thumping jack," in dealers' phraseology—and yet lameness not be a consequence.

In the Detection of Spavin, the eye is a nicer test than the hand, though the two, one in confirmation of the other, constitute our ordinary agents in the examination. Commencing with critical *inspection* of the hock, the place in which the examiner can best trace in his eye the line of its inner superficies, is standing by the side of the horse's (correspondent) fore limb: here, by stooping his body, and carrying his head either near to or away from the animal's abdomen, according as may be required, he will obtain the sought-for profile view of the inner superficies of the hock. Now, supposing the examiner, in this position, casting his eye down the inner surface of a sound or normal hock, he begins, superiorly, with that prominence so remarkable in all hocks—though more conspicuous in some than in others—the internal *malleolus* of the tibia; from which the descending line, marked in his eye by the profile of the superficies, undulates inward and backward until it has reached the bottom of the hock, where it suddenly declines down to a level with the line of the cannon. Now, it is precisely the interval between the prominence of the hock ceasing and the

* See Veterinarian for 1830.—Discussions of the Veterinary Society.

cannon beginning—the part of the superficial line which constitutes the *dip* from one into the other—that is *the site of spavin:* a small round tumour interrupts the natural declivity from the hock to the cannon, and in a moment catches the eye of the experienced observer. In cases where the tumour, from its smallness or flatness, or diffuse character, is indistinct to the eye, the examiner will not make his mind up concerning it until he has narrowly compared the suspected with the sound or normal hock. For my own part, I always think this comparison is most critically made by standing in the situation above described, first on one side of the horse and then on the other, and carrying the impression made in the eye from one hock to the opposite. By placing himself, however, immediately in front of the horse, and directing his view between the fore legs, both hocks may be inspected simultaneously, and to more advantage than if he were positioned behind the horse: in neither of these situations, however, to my mind, can the examiner obtain that critical profile view of the superficies which is best suited to the detection of the small or flattened tumour of spavin.

In these doubtful cases it is that we more especially derive advantage from coupling the feel with the sight; by the one sense confirming or correcting the impression made by the other. The sensation given to the fingers, carried over the place of spavin in a normal hock, is not one of uniform levelness or rotundity of surface; we feel certain irregular elevations natural to the parts: below the malleolus we feel the process of the astragalus, the prominences of the cuneiform bones, and immediately beneath that of the small cuneiform bone, the head of the inner small metatarsal bone. Indistinctness to the feel of these landmarks, if I may so denominate these natural prominences, and particularly about the site of spavin, or any unusual fulness or rotundity of surface thereabouts, would excite suspicion, and this suspicion would be confirmed or removed by contrasting the feel as well as the aspect of one hock with that of the other. It is but natural to expect there should be, in their callous or inflamed condition, heat and tenderness in these tumefactions; it is difficult, however, in general, to detect the former; and as to the latter, it is equally difficult often to ascertain whether any flinching the horse may manifest arises from tenderness, or from any pressure the examiner may be making, or from a habit of catching up his hind leg the moment it is handled, as some horses will.

Lameness, though the ordinary, is not the necessary Consequence of Spavin. The lameness of spavin arises from two causes:—mostly, from the pain or soreness the animal experiences in using his hock, which, varying in different cases and at different periods or stages of the malady, will account for its fluctu-

ations—for the horse being so much lamer at some times than at others. Secondarily, lameness may be produced, in chronic inveterate spavin more particularly, by inability to flex and extend the hock as usual, owing to some increase or alteration in the joint oil, or else in consequence of partial anchylosis. Indeed, lameness may vary in degree from what is called "stiffness" in action to downright halting or hopping. In general, the lameness bears no proportionate intensity to the magnitude of the spavin: a horse may have a large exostosis on the spavin place, and yet not evince lameness; on the other hand, a horse may be extremely lame, and yet only "a knob" be discoverable in the seat of spavin. Ordinarily, the lameness arising from spavin not being such as to incapacitate the horse, and being behind instead of before, he is kept at work with it when he ought to be laid up. Most likely he goes quite limpingly when first he leaves his stable in the morning, but, after having gone awhile and got warm, his lameness shews itself less and less, until at last he goes all but or quite sound; the explanation of which appears to be, that any redundance or incrassation of the synovial fluid the morbid condition of the hock may have caused, is by action, by repeated flexion and extension, temporarily removed; and the motion which from that cause, or from partial anchylosis, at first was stiff and painful, becomes by degrees comparatively facile and painless. In a case, however, where there exists much inflammation of the tissues, or in that form of disease in which ulceration or *caries* is present, exercise, so far from benefitting the animal, makes his lameness worse.

My own observation has led me to note two kinds of lameness in spavin:—one, the effect of the ordinary sub-acute, or of chronic inflammation, or of partial anchylosis of the parts, is but comparatively slight, and consists, for the most part, in stiffness on motion, or in defective flexile power of the hock joint; the other, the effect of acute inflammation of the spavined parts, or else of ulceration of the joints, consists in a sort of spasmodic catching-up of the spavined limb the moment the heel of the foot comes down upon the ground, something after the manner of stringhalt; and this may not infrequently be observed even in the horse's side movement in his stall. With such characteristic lameness as this latter, and with spavin present as well, evidently hot and tender to pressure, there can exist no doubt about the case. Where, however, the lameness is but slight, although a spavin be present, yet from the absence of any heat or tenderness in the swelling, as well as from its duration, may doubt arise as to the cause of the lameness. In such a case as this we should take advantage of the well-known fact of the fluctuating or evanescent character of spavin lameness; to which end it is advisable to have the horse

under examination hard ridden or driven, or otherwise exercised until he is in a profuse sweat, and afterwards kept standing tied up in a stall until he is cold and stiff in his joints, and then trotted out again. A knowing vendor of a spavined horse would take care to "warm" him by a good ride or drive before he took him to shew to the future purchaser; and then, while under examination, by dint of whip and spur, and management in the bridle hand, he might pass his merchandize off (to an unwary buyer) as sound. Indeed, so much is sweating work, or exercise approaching thereto, apt to prove a foil to shewing lameness, that one is almost inclined to say no horse ought to be examined under such circumstances, certainly no horse suspected of spavin. The time of all others that a spavined horse will be apt to manifest his lameness will be the day following after a hard day's work; and when he makes his first egress from the stable in the morning is the critical period for examination.

Horses that go limpingly lame from spavin, lame at all times, and lamer still when they work, often experience pain in the seat of disease to a degree which, in the language of Solleysell, causes them "to pine away, especially about the flanks." They have probably been blistered, and fired, and setoned; have had their hocks frightfully scarred, and yet are lame to that degree that they are unable to do more than gingerly put the toe of the foot of the spavined limb to the ground, and so, painfully, hobble along; and although they may still maintain their appetite, yet are they low in condition, tucked up in their flanks, evidently, in short, "pining away." Such pitiable subjects, it is true, may be kept at work; the little, however, they can do when put to any thing requiring strength of action or pull, together with the wretched condition they are generally in, is a fact so well known to coach and omnibus proprietors, and horse-keepers in general, that at the horse auctions such animals fetch little or nothing. Even for agricultural work such labourers as these prove of but little worth. Now and then, however, it happens that the spavined horse, although treatment has failed to render him sound, continues in respect to his disease in that state in which he appears to suffer no local pain at all while at rest, and but little while at work, and so is able to do a considerable amount of some kinds of labour, lasting in it perhaps for years. Still, such a horse is more likely than another to receive injuries, to experience aggravation or relapse of disease in his already diseased hock; and under such return or augmentation of ailment, unless great care be taken, and frequently with all the care we can take, may and will fail altogether.

Spavins exist which occasion no Lameness. How this

comes to pass will appear when the time arrives to consider the reasons why spavins in general cause lameness, and on occasions very great pain as well, and this cannot be done before we come to treat of the pathology of spavin. It is sufficient for our purpose here, that we note and establish the fact, that lameness is not a necessary consequence of spavin. Nothing is more common than to meet with horses—colts even—who have what the dealers call "knobs" in their spavin places; and the time was when such "knobs"—which are to all intents and purposes spavins—were certificated as constituting unsoundness. This was professional decision which met with a good deal of opposition at the time, and justly so; and the result has been, that such "knots" are now allowed to pass as compatible with soundness. I remember, in the year 1827, rejecting a mare shewn by the late Mr. Harman Dyson to the First Life Guards, on account of having in each hock what I regarded as a large spavin: the mare, however, went perfectly free from lameness, and it was urged by Mr. Dyson at the time that he frequently met with enlargements of the kind —"low down," as these were—without any accompanying or consequent lameness. The mare, notwithstanding, I objected to. Since then, however, experience has taught me not to refuse to pass such horses; but to take them, guarded by special warranty; and I cannot say I have had any cause to regret such a change of opinion.

It is an observation of old date—Gibson makes it—that "a spavin which begins at the *lower* part of the hock is not so dangerous as that which puts out higher, between the two round processes of the leg bone; by which I take it, he means the malleolus above and the cuneiform bone below: the same writer adds—"a spavin near the edge is not so bad as that which is more inward, towards the middle, as it does not so much affect the bending of the hock." These are observations to which my own experience would lead me to subscribe; and I hope, when we come to the pathology of spavin, to have it in my power to shew they admit of satisfactory explanation.

Lameness arising from Spavin is sometimes present without the outward Appearance of Spavin. This is a form of disease better known to veterinary surgeons in general, I believe, under the denomination of *occult hock lameness*. My own attention to the subject was first drawn so long ago as in the year 1815, though then I was quite in the dark as to the nature of the case. On my return from Belgium, after the Battle of Waterloo, I had in my possession a bay blood mare, who was lame in one of her hind legs—I forget which—but whose lameness was of that nature that no external sign whatever was apparent to

account for it. The limb had been searched over and over again by myself and some other veterinary surgeons, and the mare had been trotted and walked, circled and backed, and put to all other known trials and tests, without the examinations ending in any thing like concurrent opinions respecting either the seat or the nature of her lameness. The mare returned home, marching with the troops, led by a man on horseback—for notwithstanding her lameness she walked very well—and as soon as she arrived at head quarters (Woolwich), I shewed her to my father, at the time the Senior Veterinary Surgeon of the Ordnance Department. He examined her, and without hesitation pronounced her "lame in the *hock*," and she was treated accordingly; and the result was, at no great distance of time, her complete restoration to soundness.

It is true, so far as the case above related goes, that the only proof the mare's lameness was in the hock, was her restoration to soundness after the application of remedies to that joint. There is, however, to be said, in addition, to induce us to believe that it was so, that of all the joints of the hind limb, no one is so frequently—so likely to be —deranged as the hock; and, consequently, from this fact alone, is a *primâ facie* case made out. Moreover, we have to assist us, in our diagnosis, the stiff or imperfect flexion of the hock joint in action, and the wearing away of the toe of the shoe, shewing that the heel is rarely or but very gingerly put to the ground. And it has happened before now, that while doubt is impending as to the locality and nature of the lameness, a spavin has made its appearance and dissipated all further conjecture; and with this development of the spavin, the lameness, so far from being augmented, is not unlikely to become better. This is an observation made so long ago as the time of Solleysell: this admirable observer, in one part of his chapter on spavins, says—"at their first piercing they commonly always make a horse halt, and afterwards, the swelling growing bigger, the horse halteth no more with it*."

ON METACARPITIS.

By W. A. CHERRY, *V.S.*

THE following observations on a disease of the existence of which I have been acquainted for some years, are founded on data furnished by nearly or quite a hundred specimens of the disease

* Op. cit. part i, chap. xvi, page 60.

after its formation; yet so obscure have I found the symptoms positively indicative of the presence or progress of the malady, that I must admit my inability to state with certainty more than its situation, and the form that I have found it to assume in those morbid specimens which have come under my notice. They must, therefore, be considered only in the light of cursory observations: the most important part, that of practically defining the useful characteristics, being left to the labour of future years: perhaps when attention is drawn to the subject this desideratum may not much longer be wanting.

In my earliest researches into the nature of that disease of the knee-joint to which I have given the term "carpitis," I became aware of the existence of another malady, which from its close approximation to that joint, and from also occasionally finding it present with carpitis, I have for some years considered to be either a concomitant or closely allied disease; but reflection has led to the conclusion that it is distinct, and ought to be treated of as such; and for the convenience of reference, from its situation being on the metacarpal bone, I have used the term "*metacarpitis.*"

It is a disease not confined to the fore-leg alone, but is nearly as frequently to be found in the hind limb; but as the parts below the knee and hock are so nearly similar that the description of the one suffices for the other, it is only changing the term from "carpus" to "tarsus," to make the pathological description correct.

How far it may be a concomitant of "splent" is not easy of solution; but I cannot consider it to be a form of or extension of that disease, though it may be so closely connected as to have the appearance of being so. It must be taken into consideration how very rare it is to find an exception to the presence of splent in the fore limb, and only in a less degree in the hind limb, and this in animals that were never known to have been *lame* in their lives—in fact, simple splent is not so much to be considered as a disease, as an effort of nature to make stronger that part which has been found to be weak—and though in very many instances during the ossific process lameness presents itself, yet so soon as this process is effected, the lameness subsides of itself: there are exceptions, however, to all rules, and, of course, to this of splent; but it is not my intention to enter upon the consideration of this latter disease, only remarking upon those points which bear, or appear to do so, upon the main subject. That splent, simply as such, is what I have stated it to be, namely, a process of strengthening a weak part, I have a good specimen in the legs of a foal, nine months old, which, dying from some internal disease—I forget what—

had *splents in both fore legs**, in which the ossific process is just completed. No one was aware of this colt ever having been lame; so slight, if any, were the attendant symptoms of the increased local inflammatory action; and I have no doubt that such is often the case.

Metacarpitis is a disease situate at the posterior part of the large metacarpal bone, immediately at the origin of the suspensory ligament. The form in which it presents itself when it has existed for some time, or become, like other diseases of a similar character, quiescent, indicated by a more or less return to soundness or usefulness, is a deposit of ossific matter at the superior attachment of the suspensory ligament beneath the periosteum, or, to speak more correctly, the conversion of that membrane into bone: in which case an adventitious membrane is produced, supplying the place of the converted periosteum: this will at times be so extensive as to produce a prolonged process of bone projecting horizontally backwards between the edge of the suspensory ligament and the side of the commonly inner small metacarpal bone, *but not connected to it*, yet in close connection, or, perhaps, actually imbedded in the edge of the suspensory ligament. This is most generally on one side only, but I have met with it clipping the ligament on both sides; but I do not recollect an instance in which this prolongation of the ossific deposit extended beyond the external or posterior face of the suspensory ligament, so that it could not interfere with the action of the flexor tendons. It is this prolongation, when placed unusually low down the metacarpal bone, which has given rise to the generally received opinion that splent is only productive of continued lameness, or to be feared as likely to produce such state when it interferes with the sinew. That the disease, when shewing so much ossific deposit, should not be observed, is improbable; and hence the opinion entertained as to the effect of such enlargement upon the action of the sinew; while, on the other hand, others maintain this opinion as the height of absurdity: but it is always well to inquire into opinions before they are condemned to ridicule; for had but the investigation been carried out, it would have resulted in the separation of these diseases, and shewn that, though they may be produced simultaneously by one injury,

* The colt in which subsequently, by accident, splents were found to exist in both fore legs, was under the treatment of my late elder brother; and another case which occurred in his practice illustrates the deposit of ossific matter in the manner in which I have stated, though not at the same part. A light hackney mare had been lame for a long period; after death it was discovered that granular ossific deposits had taken place beneath the insertion of the extensor metacarpi magnus, partially involving the periosteum: no other cause for lameness was found to exist. The details, I am sorry to say, were lost at his early and untoward death.

and go on their course together, or be produced at different periods, they may extend the one towards the other, so as to have the appearance of being merely an extension of one or the other; yet still the greater number would have shewn indubitably that they were the result of distinct morbific action. For, in the greater number of specimens I have examined, there has been either a marked line of separation between the two states of disease, or they have shewn, by that appearance which is unmistakable to the morbid anatomist, that they have not been of equal duration; that they have been the production of causes acting at different periods, and independent of each other. I do not mean to assert that splent never does extend to the contiguous part merely by the extension of morbid action, without that part being previously the seat of injury, or *vice versâ;* but I mean that it is so rare, that I have not been able to trace satisfactorily a case in which it occurred.

I have not been able to detect that these ossific deposits are produced in the substance of the ligament itself, but are confined to the periosteum or the connecting medium between the suspensory ligament and the metacarpal bone; and I consider that they are to be viewed as the result of abnormal action, followed by the deposit of bone, from the proneness of the vessels supplying these parts to form such deposit.

I, therefore, must consider that these ossific deposits are indicative, in proportion to their extent, of the greater or less period of duration of the abnormal action and consequent lameness; for that such a change can be produced in a part which is designed to bear so much weight or exertion, and go on without shewing some considerable symptoms during the period of its formation, cannot for an instant be doubted: but when this period has passed, or, from some cause or combination of causes, this inflammatory state subsides, and the already existing deposits have time to become consolidated, and the neighbouring parts to accommodate themselves to the change, then, as in other cases of ossific deposits, the lameness may cease; and it is possible that these effects of injury may even add increased strength to the parts.

In the foregoing remarks, I have been speaking of the disease as existing in an aggravated form; but by far the most common state to find is, that the surface to which the head of the suspensory ligament is attached has become, from granular ossific deposit, more rough or asperous than in the normal state; and for a long period before I became aware of the existence of this disease, I had noticed the difference that existed between the appearance that different metacarpal bones assumed in respect to this asperous surface, but only viewed it as a variety in normal condition; yet, when I came to trace through the appearances upon a larger scale, and note with

more accuracy the connecting changes, I found that these appearances were the result of diseased action.

This asperous or granular form of the deposits is more common to the fore limb, while the prolonged process of bone is rather more frequently to be found in the hind limb—that is, speaking as to the relative proportion the one form bears to the other.

I must admit, as I before stated, that great obscurity exists as to the symptoms by which this disease is to be detected from splent, spavin, or carpitis. That a part so completely closed in by bone on three sides, and covered by the thick bodies of the suspensory ligament and the flexor tendons on the fourth, as also from the low degree of vascularity and sensibility of the component parts, cannot be expected to yield any evidence by which it may be recognized by manual examination: *heat*, except in very aggravated cases, will not shew itself, or so slightly as to escape ordinary observation. *Pain*, we know, is present, because of the lameness; so also the effect of this increased action is completely shut in from perception either of eye or hand. The symptom I am most disposed to believe in is that of the bent or bowed knee, a position which would be the most likely to give the greatest degree of repose to the suspensory ligament; and, farther, those bowed knees which we often see,—unless it is, as is sometimes the case, congenital formation,—are the result, first, of the disease, and, finally, the parts becoming adapted to this new position continue in it. The gait in these horses, though not disposed to be so unsafe as from many other forms of lameness, yet is one of evident want of stability, and one in which I have noticed, that, though these horses so affected will go very usefully sound in harness, yet they become worse when greater weight is thrown on to the fore legs by the addition of a rider; and when such horses have been lamed by being ridden, they will occasionally, by quiet harness work, gradually become less and less lame. By the bowed knee I mean that form which is unaccompanied by the throwing forward of the fetlock joint, or that form of bowed leg which is evidently dependent upon a contracted state of the flexor muscles.

There is also another symptom which I am disposed to refer to this disease; that is, a fulness, looking and feeling like a turgid vein, which is to be found proceeding down the inner side of the leg by the side of the sinews, but which is not connected with the sheath of the tendon.

The gait must be very much like that arising from a strain of the flexor tendons, or body of the suspensory ligament itself: in fact, it is easier to arrive at the minute shades in the gait shewn by lameness situate at different parts of a limb by a little practice of the eye, than to describe them on paper; therefore I must be

only understood generally on this point. But when, in lameness of the fore limb, there is no heat or enlargement of the knee-joint, or the flexor tendons, or their sheath, or the body or branches of the suspensory ligament, or the seat of splent, or inflamed bursæ, or ringbone, or ossified cartilages, or navicular disease, or other plain and palpable disease of foot or leg; but when lameness is present, with the leg clean and oftentimes cold, no external or recognizable indication to account for the existing lameness, then I say that we may, with tolerable probability of being correct, refer it to the origin of the suspensory ligament: it will be what I have termed "*Metacarpitis.*"

When a similar kind of lameness, situate in the hind limb, and no symptom of spavin or disease of foot or leg is manifest, so may we refer the probable seat to the head of the suspensory ligament; in which case, for distinction sake, we may use the term "*Metatarsitis.*"

This form of disease I have noticed to be of more frequent occurrence amongst well-bred horses than under-bred ones; and also as another curious fact, that the legs the most subject to it are the clean and wiry-looking. I account for this peculiarity in this way,—that these are the kind of legs the structure of which is particularly dense and tough, and therefore a degree of violence which is sufficient to injure the sinews of a less firm limb, is not sufficient to affect the sinews of a wiry one, such as I have been endeavouring to describe. Such a leg resists or does not yield to the ill effects of continued severe exertion until after a long period, or some injury of greater severity than usual; and when such yielding does take place, it will be at the weakest part, and in this kind of leg, that is, the periosteum situate at the posterior part of the metacarpal or metatarsal bones, from the constant or severe strain applied to it through the attachment of the suspensory ligament, this membrane having more active vitality than the bone or suspensory ligament, and from the increased density of these latter parts giving them the preponderance, the general equally existing balance of power or strength is lost, and the more vascular part gives way: therefore it follows that we shall find it of less frequent occurrence in limbs of less dense character, and which more particularly belong to under-bred horses. In these latter, the sinews, joints, bursæ, &c. are the weakest, and therefore yield sooner than the periosteum: thus, the character of limb which would be most prone to carpitis or spavin would be less prone to metacarpitis or metatarsitis; and such is practically shewn by the result of my observations deduced from the morbid specimens which have passed under my notice, the bulk shewing but slight or not any indications of either of those diseases; and it is probable that this disease, being occasionally the result of

a deficient equability of strength of the parts so uniting, when the active inflammatory action has subsided, and not having proceeded beyond the state of granular deposit, may, under such circumstances, be a means, like splent, spavin, &c., of adding to the strength of a part that has proved itself to be weak. This observation will, however, only be applicable to some certain states of the disease.

But such is the complexity of disease, so rarely is it that we find any one disease existing without some traces of other disease, that it becomes difficult to divide or to make clear that which otherwise would be so; hence it follows that almost all are disposed to take different views of the causes of the various symptoms that are manifested in the progress of morbid action: but many things which appear at the first sight to have only an ideal existence, assume a tangible and coherent form when the mind has acquired the power of seeing through the apparent gloom which before surrounded it.

Treatment.—Bleeding from foot or pastern veins—warm bathing—cold applications, combined with firm support by bandaging—blisters—and perhaps, at times, the actual cautery: but what I believe to be the most effectual mode of treatment is long and perfect rest, and a bandage firmly bound round the leg from the knee or hock to the fetlock, and frequently wetted with cold water. This support acts beneficially, by tending to aid in the more effectual repose of the parts, and thus give a better chance for the consolidation of the newly effused ossific deposit: and this is the end to be at all times sought, as also to arrest the progress of such deposit at as early a stage as possible.

VETERINARY OBSTETRICY:

THE VARIOUS PRESENTATIONS AND METHODS OF EXTRACTING THE FŒTUS.

By W. A. CARTWRIGHT, *M.R.C.V.S., Whitchurch, Salop.*

[Continued from page 21.]

BREECH PRESENTATION.

A BREECH presentation is that wherein the tail and breech of the fœtus are to be felt protruding within the os uteri or vagina, and with the hind legs stretched out underneath the belly. Sometimes the fœtus lies upon its back or side with the breech presented; but most frequently it is in a sitting posture, with its back towards its mother's and its feet stretched out beneath its abdomen and thorax.

Method of Extraction.

If there is much straining, we may as well first give a strong dose of sedative medicine. We must then raise the cow's hinder parts well up, by placing under her a quantity of dry horse-dung or straw. We should next well oil our arm and introduce it into the uterus, and try, if possible, to get hold of one of the feet, and to bring it up into the vagina; but if we cannot succeed in bringing it forward solely with our hand, we must get an assistant to force back the hinder parts, either into one or both hands, or into a forked instrument made for the purpose, while we pass our hand down to the foot again and carry a cord around the leg, just above the hoof or fetlock, and which should be given to another assistant to pull at while we carefully hold the foot in our hand and guard it from injuring the uterus. In some cases, when we have got a cord around the leg, it is a very good plan for our assistant not only to force the hinder parts forward by means of the breech, but for him to place his one hand against the point of the hock of the leg we are getting up, so to push the stifle forward as to get the whole of the fœtus out of the pelvis; whereby we shall be more able, by pulling at the foot and leg, to flex the tibia upon the femur, and to draw the foot readily up.

Sometimes it will be found, especially if the hinder parts are not forced pretty well out of the pelvis, or even if they are, that we cannot bend the leg at the hock sufficiently backwards so as for us to bring the leg into the passage, on account of the tendons and ligaments not permitting it; to obviate which it will be found that, if we divide the tendon of the flexor metatarsi muscle just above the front of the hock, and before it bifurcates, it will enable us to straighten the leg, and flex the hock joint to a far greater extent than to what we could have done before, and which will materially assist us in accomplishing our purpose. But in case we cannot get it right in this way, a cord must be passed around the hock, and drawn sufficiently into the vagina to permit us to amputate the limb at this joint, just below the os calcis, either with a scalpel, saw, or powerful pair of amputating forceps; or it will answer our purpose, perhaps, quite as well if we can but only fracture the tibia a little way above the hock, which will completely obviate the objection of the hock not flexing contrary to its natural action; or we may divide the ligaments on one side of the hock joint, similarly to what a butcher does, and afterwards break down the joint. Of course, the same methods must be adopted in getting one leg into the passage as with the other.

After the legs are in a right position, we must attempt the removal of the fœtus either with or without cords, as we think proper; and, previous to commencing pulling, we should be careful in having all the parts well oiled, seeing that we shall be pulling against the natural position of the hair. I have also known, when the passage has been much swollen, and there has been a good deal of straining and difficulty in forcing the fœtus back and getting the legs up, for ropes to be fastened to the hind legs of the cow and carried over beams above her, whereby the hinder parts of the cow have been drawn up and elevated, by which means the fœtus has fallen more into the abdomen, and has not forced so much against the passage; the consequence has been the more readily getting up of the legs.

Now and then, from the hind quarters being very large, the fœtus will not pass at the hips. In such cases it will be advisable to draw one side out of the pelvis a little in advance of the other, so as to avoid the great femoral trochanters passing simultaneously. Some have advised for this purpose that we should divide the symphysis pubis; but I am inclined to think that this will be of little use; for, when it is done, the pelvic bones at the symphysis will still be in apposition. To be of any service, one of the pelvic bones at the symphysis must be in advance of the other; and before which can take place the fibro-cartilaginous substance that exists at the sacro-iliac synchondrosis must either be cut through or violently torn asunder, which, I fancy, is not easily done.

We shall also find sometimes, after we have extracted the hinder parts, that the fœtus will be immoveably fixed at about the centre of the body: this arises from the abdominal viscera being forced back into the anterior part of the abdomen. In such cases we have nothing more to do than to make an incision into the abdomen, and remove its contents.

One hind Leg in one of the Horns of the Uterus.

I was once called in to attend on a cow where symptoms of parturition had commenced. It was a breech presentation. The os uteri was but partially dilated; but by gentle manipulations it became tolerably expanded. After a good deal of time and labour had been expended we were only enabled to get one of the hind legs up, and for a long time after we could not positively decide whereabouts the other limb was, for we could not find it. At length it was found, and through great exertion was brought into its proper situation, and the calf extracted. In the course of the day the cow died.

What rendered this case so difficult was, that the main bulk of

the fœtus lay in the body of the uterus, whilst one of the hind extremities lay at full length in one of the horns, the opening into which was not far distant from the os uteri, as was clearly seen on opening her. It may be observed, that all the time my assistant was striving to force the breech forward, to make room to get the leg up, he was actually obstructing the passage by impacting the limb.

If a similar case should occur again, our best plan would be to pass a cord around the limb, as close as possible to the hock, and draw it into the vagina, and afterwards amputate it at the hock in the way above described. If we do not succeed, we must make an incision into the muscles covering both sides of the ilio-femoral articulation, and afterwards, with strong hooks, disarticulate the femur and draw the limb out: having done so, we must insert hooks to pull at, either into the acetabulum or into the obtinator-foramen; by which means, and by pulling at the other extremity, we shall readily extract the fœtus.

Contraction of the Muscles of the Hind Extremities towards the Body and Hips.

Some years ago I was called in to a cow that could not calve. It was a breech presentation only. I introduced my hand and passed cords around the legs, and with little difficulty succeeded in pulling the hind legs into a proper position. They were not near so low down as usual; but I found, when forcing the breech forward by pulling pretty freely at the legs, that the latter did not fairly give way and project straight out as in ordinary cases. As I had met before with several cases where, by a little extra pulling, the hind legs had slipped over the brim of the pelvis and had suddenly projected straight out, I concluded that the same means would have been successful here: but this I found was not the case; for after three or four of us had been pulling at the legs for a short time, one gave way between the metatarsal bones and the tarsus, and soon afterwards the limb came off. I then secured the cord around the lower part of the tibia, where it was well retained by the projection of the os calcis. Soon after this the other limb broke off in the same place that the former had done, but it did not entirely come away. Seeing no other chance of reaching it, and believing that it was in a proper position, I had greater strength called in, and soon extracted it, but not without considerable force being used. She died the next day. The uterus was ruptured.

Examination of the Fœtus.—It was soon discovered that the

fœtus was a mal-formed one. The stifle joint lay forward, high up against the posterior ribs, and was held firmly there by the great contraction of the skin over the parts. The extensor muscles underneath were very much shortened. The tibia was also bent unusually backwards, as the os calcis came in contact almost with the hip joint. The muscles here were also in the same state of contraction and shortening as those attached to the patella, &c. The part of the limb below the hock was nearly in its natural position, being only a little more flexed upon the tibia than usual. The stifle and hock joints were also firmly held together in their altered position by the shortening of some and lengthening of others of the ligaments of the joints; and when the muscles were cut through, the joints could not be brought to their natural positions without rupturing some of the ligaments. Both hind legs were in this condition.

Observations.—I never met with a similar case to the foregoing. In consequence of the adhesions of the stifles to the body, it is very evident that by pulling at the legs we not only drew the stifles into the pelvis, but the breech also, thus causing the former forcibly to abut against the pelvis, there not being sufficient room, without using excessive force, for the stifles to be drawn out. Now, here I would say, that this case, like many others, teaches us the lesson which Dr. Blundell so repeatedly urges upon his pupils, " that all force is to be exploded from midwifery;" and I am confident, more and more every year, from my own experience, that, although we are justified in using a greater degree of force in our patients than accoucheurs are with theirs, yet there is a certain boundary which we ought to be careful not to overstep; for whenever we find, as I have before stated, that moderate force will not answer our purpose, we ought to make another strict examination, to ascertain the cause *why* we are not able to extract the fœtus, and then we shall generally succeed; and confident I am, that although some of our patients most miraculously recover after great violence has been used, the greater number of them die in a short time after, or else linger out a most miserable existence.

However, to return—If ever we should meet with a similar case to the above, it will most decidedly become our duty to separate the contractions between the stifle and the body of the femur, and then force the breech forward, while our assistant at the same time is pulling at the legs: if we cannot succeed in this way, we must disarticulate the limbs at the hip joints, and remove them as before described.

LEG-HANKED—TWINS, ONE A BREECH PRESENTATION; THE OTHER WITH ITS FOUR LEGS PRESENTED.

In the year 1843 I received a letter from Mr. Cox, V.S., now of Ashbourn, Derbyshire, wherein he mentions the following case. He says, "a cow making no progress in parturition, we were requested to examine her, when we found the tail of one calf was to be felt (a breech presentation), and all the feet of the other calf. It being the first case of the kind that we had seen, we set to work and corded the hind feet of the latter, and pulled at them, at the same time pushing the fore legs and head back; but from one of the hind legs not properly advancing, a further examination took place, when it was found that it had shot between the hind legs of the other calf, constituting what, by some, is called 'leg-hanked.' The end of the hind leg that did not sufficiently advance was then loosed, and, by pulling at the other leg, it caused the fast one to come from between the hind legs of the other calf; after which it was again corded and brought up, and the calf readily extracted."

In such cases as these, although Mr. Cox's did well, yet I think it would be advisable for us, first, to get the hind leg that projects between the hinder legs of the other calf into its proper position before we attempted its extraction. If it should be possible to bring the head forward with the fore legs, the hind leg would follow in due course, and the breech of the one calf might be forced out of the way sufficiently for the other to pass: or, I think it would be quite as preferable to force the four legs out of our way, and to remove the calf that has its breech presented, first.

TWINS, ONE A BREECH PRESENTATION; THE OTHER LYING ON ITS BACK, WITH ITS HEAD AND FORE LEGS PRESENTED, WITH ONE OF THE LATTER BETWEEN THE OTHER'S HIND LEGS.

In these cases we must, first of all, try to get the fore leg that has passed between the hinder ones into its proper place: after which we may extract the fœtus as it lies, or we may force this fœtus back, and extract the other, as in a breech presentation.

ON THE CERTIFICATES OF VETERINARY SURGEONS.

By "A Lawyer."

THE difficulties pointed out, under the above title, by Mr. Goodwin, in your last number, must be familiar with veterinary practitioners, and the uncertainties of their opinions have been

made frequent matters of reproach by the public, somewhat unjustly. It seems, however, to have escaped Mr. Goodwin's notice, that the problem which he proposes for the solution of a meeting of veterinarians has been already solved by recent decisions of the Judges. They, and especially the Court of Exchequer, have adopted and confirmed the definition of unsoundness originally given, I believe in "The Horse," by Mr. Youatt. That admirable Treatise, published under the superintendence of a committee consisting mainly of lawyers, might be expected to be legally correct, and the writer of this recommends the attentive perusal of Chapter 26, "On Soundness, &c." 1843 edition, to every veterinarian who feels the said difficulties, or who cares for the liability to the witness box. He will there find every questioned instance logically tested by the application of the definition. But it will be extensively useful to your brethren to circulate in your Journal the following judgment of Mr. Baron Parke, given in Kiddell *v.* Barnard, 9 Mec. & W. 668. That case may be taken as settling the law, and the judgment furnishes a minute and comprehensive exposition of the subject: it ought to have appeared in the chapter referred to.

Parke, B.—"I think there ought to be no rule in this case. The rule I laid down in Coates *v.* Stevens (*a*), 2 Moo & Rob. 157, is correctly reported. I am there stated to have said, 'I have always considered that a man who buys a horse warranted sound, must be taken as buying him for immediate use*, and has a right to expect one capable of that use, and of being immediately put to any fair work the owner chooses. The rule as to unsoundness is, that if at the time of the sale the horse has any disease which either actually does diminish the natural usefulness of the animal, so as to make him less capable of work of any description, or which in its ordinary progress will diminish the natural usefulness of the animal; or if the horse has, either from disease or accident, undergone any alteration of structure that either actually does at the time or in its ordinary effects will diminish the natural usefulness of the horse, such horse is unsound. If the cough actually existed at the time of the sale as a disease, so as actually to diminish the natural usefulness of the horse at that time, and to make him then less capable of immediate work, he was then unsound; or if you think the cough, which, in fact, did afterwards diminish the usefulness of the horse, existed at all at the time of the sale, you will find for the plaintiff. I am not now delivering an opinion formed on the moment on a new subject: it is the result of a full previous

* By way of caution, it may be useful here to remark, that what is said as to immediate use, by the learned Judge, must be intended as far as regards soundness only, not condition.

consideration.' That is the rule I have always adopted and acted on in cases of unsoundness, although in so doing I differ from the contrary doctrine laid down by my brother Coleridge, in the case of Bolden *v.* Brogden, which has been referred to. I think the word 'sound' means what it expresses, namely, that the animal is sound and free from disease at the time he is warranted to be sound. If, indeed, the disease were not of a nature to impede the natural usefulness of the animal for the purpose for which he is used, as, for instance, if a horse had a slight pimple on his skin, it would not amount to an unsoundness; but even if such a thing as a pimple were on some part of the body where it might have that effect, as, for instance, on a part which would prevent the putting a saddle or bridle on the animal, it would be different.

"An argument has, however, been adduced from the slightness of the disease and facility of cure; but if we once let in considerations of that kind, where are we to draw the line? A horse may have a cold, which may be cured in a day; or a fever, which may be cured in a week or month, and it would be difficult to say where to stop. Of course, if the disease be slight, the unsoundness is proportionably so, and so also ought to be the damages; and if they were very inconsiderable, the Judge might still certify under the statute of Elizabeth, to deprive the plaintiff of his costs. But, on the question of law, I think the direction of the Judge in this case was perfectly correct, and that this verdict ought not to be disturbed. Were this matter presented to us now for the first time, we might deem it proper to grant a rule; but the matter has been, we think, settled by previous cases, and the opinion which we now express is the result of deliberate consideration."

The veterinary surgeon, therefore, in examining a horse as to soundness, should keep clearly in his mind that he is looking for disease or mischievous alteration of structure. The disease may be obvious, and, of course, constitutes unsoundness: the alteration of structure may be indisputable; but where no present lameness or mischief appears, the fullest opportunity for veterinary skill occurs in judging whether a mischievous progress be likely, and then arises the liability to differences of opinion among persons of even the greatest possible skill. It should be remembered, too, that the veterinarian has in the course of his business two totally distinct offices imposed on him. If the simple question be, as in a dispute after purchase, *sound* or *unsound*, he has merely to keep clearly in view the rule, and answer that question only. On the other hand, if he be called to advise on an intended purchase, a strict application of the rule would generally stop the purchase, perhaps always in the only really useful horses, i. e. aged ones.

His business, then, is to point out the technical unsoundness, and advise on the amount of deterioration. This latter office excuses the introduction into certificates of remarks commented on by Mr. Goodwin. Let not veterinary surgeons be discouraged by the frequent differences of opinion among the eminent professors of the art. Such differences are unavoidable in the practical application of every science. Every day's experience exhibits them amongst the most eminent professors of human surgery and medicine; nay, even the very wisest lawyers and judges have been known to differ. It cannot, however, be denied that the horse himself, the truest and most honest of animals, does, somehow or other, give occasion to more than his fair share of the exercise of the opposite qualities in man; and it may not be useless to caution even the leaders of the art against the infirmity of answering questions according to the wishes of the persons putting them. Leading questions by counsel are much discouraged as little productive of truth; and a leading question from an influential attorney may somewhat bias the answer. Opinions in cases of dispute should be formed with the strictest impartiality, and with the constant recollection of liability to the cross-examination of a set of gentry who, though generally very ignorant of horseflesh and equine surgery, can easily pick up enough knowledge to expose opinions rashly or dishonestly pronounced.

A CASE OF LACERATION OF THE COLON.

By Mr. R. Dods, *Kirkaldy, Fifeshire.*

On the 17th instant, at ten o'clock at night, I was called to attend a gray mare supposed to be griped, the property of Mr. Carstairs, Smeaton, two miles distant from this place. On my arrival I found her feeding at a warm bran-mash, which she finished, and then commenced to eat some hay. I remarked she was busy taking good and healthy food, and there appeared to be nothing wrong about her.

On the morning of the 18th I was sent for again, to see her. She appeared to have spasms at intervals, but very slight, and refusing her food. The other appearances were apparently those of an animal in health, being a compact and very healthy mare. Having been feeding on barley and turnips boiled together, I imagined that the food might have been given when it was slightly sour, producing indigestion and gases.

I gave her a ball composed of aloes ʒix, zingiber ʒij, and ordered that she should have nothing but tepid water for a few hours, and which she refused.

I visited her at four o'clock in the afternoon, and found her about the same. I ordered that sufficient water, mashes of bran, and hay, should be offered to her, and I did not hesitate on leaving her for the night.

On the morning of the 19th I found her worse, the spasms increasing, and was informed that she had taken neither food nor water from the time I last saw her; and as the ball given to her was made up by an apothecary, it was doubtful whether the aloes were sufficiently powdered, and, not operating, I abstracted 10 lbs. of blood, and gave a bottle of ol. lini, and tinct. opii ʒjss along with it.

I then had her well wisped and clothed—gave her repeated clysters and gruel, which she at times took, and appeared to be relieved from the severe pain so much as to void a little hard dung, and she ejected her urine freely. The medicine not operating, I gave aloes sol. ʒiij, and had her taken out and walked for a few minutes.

At three o'clock, afternoon, I found her about the same, except that the pulse was small, and about 65: the clyster was repeated, which brought off a small quantity of fæces, and, afterwards, symptoms of medicine operating, and the urine freely ejected. I then left her in charge of the servant, instructing him, in case of her getting worse, to put her into an empty house, no loose box being here: this was done.

On the morning of the 20th, I found her frothing at the mouth, the eyes staring, and she was staggering about the house. She put her mouth to her right side, pulling at the skin several times, and then instantly expired.

On opening the abdomen in the ordinary way, I discovered the viscera in the different regions coated with fæcal matter; and, on pulling the colon to the left side, I readily perceived one of its flexures lacerated to the extent of seven or eight inches, contiguous to the right flank. Around the orifice it was in a gangrenous state, and, between it and the flank there was a large collection of dark-coloured fluid, having a strong fœtid smell: the remainder of the viscera had suffered little injury.

I have narrated the present case not with a view that such will soon find a remedy, but with reference to shew how the symptoms of internal accident and disease impose upon the veterinary surgeon, and the urgent necessity there exists for him to be cautious in his opinion in doubtful cases, however close the symptoms may resemble each other. In this case there were suspicions of the

mare receiving sand with her boiled food, which has frequently occurred in this district; and these are symptoms not very dissimilar, unless that in the disease caused by sand all the symptoms from its commencement are more severe.

I imagine that, on the evening when the mare was first observed to be ill, it was common colic, caused by distention of the intestine from gas, and that during the struggle the animal had lacerated the intestine, removed the distention, and partially relieved the pain. The fæces from time to time had escaped, until the whole cavity of the abdomen was coated with them. The wounded intestine had thrown out the fœtid fluid found within the right flank, and by causing extensive irritation, aided by the physic, produced death. It has been frequently and very justly remarked, that efficient remedies should be adopted so soon as gripes make the slightest appearance, which, probably, may prevent such occurrences as these taking place.

I am, Sir,

Your most obedient servant.

ON BLOOD-LETTING.

By Mr. R. FOSTER, *Gosberton.*

HAVING been a subscriber to and reader of your excellent periodical for a long time, and with much interest, I feel anxious to contribute a little to its pages.

In reading some of the past Numbers of THE VETERINARIAN, I find practitioners are not agreed as to the propriety, or the contrary, of the depletive system in influenza, and I have been quite surprised to find much wiser heads than mine still persisting in blood-letting; for it is my opinion, strengthened by a long and varied experience in different localities—in almost all the various forms and cases in which influenza has come under my observation for forty or fifty miles distant, in the years 1835-6, when it was very rife—that it will always be what it is at the present day, with but little variation. I have treated it when it has terminated in strangles—when it has been attended with enormous tumours about the parotid and other glands, ending in suppuration; and I have attended cases when the breathing could be heard at a considerable distance, and threatening suffocation—and in none of those cases did I consider bleeding at all requisite, as, in my opinion, it would only have increased the debility in the already too much

debilitated system. I, therefore, attacked the inflammation by counter-irritants, which I always found sufficient to abate the inflammation.

For internal medicine I have used aperient and febrifuge applications, and sometimes aperients and diuretics, varying my treatment according to the urgency of the symptoms, but generally commencing with a full dose of aperient medicine, and almost always finding a much smaller dose to act upon the bowels in that disease, particularly if I were not called in at the commencement of the malady.

For counter-irritants, in severe cases, I have applied a smart blister over a large surface; in milder cases I have used the liq. ammon., ol. tereb., et ol. olivæ; and I have always found the most severe cases of influenza yield to that treatment, without having recourse to venesection. I have treated hundreds of cases of it. I have never bled one; and I have never lost one of pure influenza; while, on the other hand, I have heard of the destruction of many in my own neighbourhood, particularly of a gentleman who had five valuable horses attacked with influenza, four of whom were bled, and their cases terminated in dissolution; but the one that was not bled terminated well: and the animals that I have been called to in the advanced stage of the disease, and that had been previously bled, I found sinking more from debility than from any other morbid state of the system. One case of influenza exhibited symptoms different from any others that came under my observation: it was a black horse belonging to H. R. Smith, Esq.

He had the usual symptoms of influenza; viz. loss of appetite, sore throat, cough, abscesses about the parotid glands, &c., together with swellings about the joints, particularly the tarsus, of a rheumatic character, which seemed to cause him considerable pain, and prevented him from lying down for some time. To these I applied the usual remedies, some mild stimulants, and the swellings and pain disappeared with the other symptoms.

A writer in the November Number of THE VETERINARIAN asks, whether those cases of influenza that have been of short duration were rendered so by phlebotomy, or whether they would have taken their departure without, this being a question which wiser heads than his have left unsettled. Now, in my practice, I have always found the disease yield to the other part of the antiphlogistic treatment, sooner or later; and I shall always trust to it, unless I find the disease come with a different type to what I have ever yet seen; and as I have witnessed the loss of so many valuable horses—I have not the least doubt from blood-letting—I would advise every practitioner to abstain from bleeding in influenza, unless he wishes it to run into low fever, and end ulti-

mately in dissolution, in which case he has nothing to do but to bleed well, and he will have what he sought for.

I would ask, what is influenza but sore throat? Then it must naturally occur, that abstinence from food in consequence of difficult deglutition induces sufficient debility without depletion: remove the sore throat, and the patient recovers; therefore, I repeat that, in my opinion, blood-letting in pure influenza, when the symptoms are all comprised in sore throat, cough, hoarseness, and fever, is not only uncalled for, but will do irreparable harm.

COMMUNICATION OF THE EPIDEMIC FROM THE COW TO THE HUMAN BEING.

By the same.

THE subject to be now considered is a cow of the short-horned breed, belonging to Mr. W. Smith, spirit merchant, of Surfleet. She was taken very ill on the 4th of September, and I was requested to see her. When I arrived, I found my patient labouring under the following symptoms:—loss of appetite—staring coat—arched back—heaviness of the eyes—sore mouth and sore teats—and with all the symptoms generally attending the prevailing epidemic.

I gave her aperient and febrifuge medicine, and applied a mild digestive to the teats, and ordered the owner to keep the affected parts clean, and to be careful in milking her, which was done with great difficulty.

20*th*.—I found my patient much the same as on the preceding day, and continued the medicine.

21*st*.—A little better. Treatment as usual.

22*d*.—Continues to improve. The female that had been milking her could do so no longer, in consequence of the teats becoming so painful as to make it difficult and almost dangerous for a female to attempt it; therefore one of the men servants was obliged to take the care of the diseased udder.

About a week after the cow had recovered from her illness the same young man asked me what he should do to his hands, for, he says, "The old cow has given me the epidemic."

I said "No, you must be mistaken;" but he said he was not, for the female that had milked her before had had her hands affected the same as his. I then asked him, whether he had been ill? he said No, he had not been ill, only his hands and arms were very much inflamed, so much so, indeed, that he could get his coat off

and on with great difficulty. He said his hand felt so heavy and full of pain that he was obliged to have it in a sling.

After the inflammation had somewhat abated, his hand came out full of large pustules: some of them containing pus, and the others a fluid, which ultimately spread over the whole surface of the hand and fore arm, separating the cuticular parts. He complained of the left hand being much the worst, and asked me the reason. I then asked him whether he had cut any of his fingers, to which he replied, Yes, he had cut one of them with a straw. He also said that it smarted very much when the dressing of the affected parts took place, which I said I thought was the cause of that hand and arm being the worst. Now, in my opinion, the two cases here recorded, are sufficient to prove them cases of communicated epidemic, and having a greater effect by inoculation.

EPISTOLARY CONSULTATIONS WITH PROFESSOR DICK.

No. I.

Dear Sir, January 4, 1846.

To-morrow I intend to forward to you the brain of a brown mare that died to-day, and was bought on Friday last, the 2d of January. The mare was not forty-eight hours in the possession of Mr. James Robb. On Saturday I was called on to attend the mare, but being from home did not see her till night: at that time she had just got on her feet. She had lain all day as if in a dead sleep, not moving a muscle. They had lifted her on her feet about mid-day. She did not seem to be able to stand; and although punctured with pins and stabbed with a penknife she did not appear to feel. It was about nine at night when I first saw her, and she was then evidently in great torment, dashing herself about until she died, which was about twelve o'clock.

Being anxious to have an inspection of the head, I proceeded to lay open the brain; and finding it in the state presented, I have thought proper to send it, that you may see purulent matter formed. Its hardness astonished me much; and, altogether, I consider there must have been chronic inflammation going on for some time. If you would be kind enough to let me have your opinion, after you have dissected the brain, I shall feel obliged. I hope it will arrive safely, and I am sure it will be with you before this letter, as it is now past post-hour, and our mail is not so frequent as it should be. Excuse this hurried scrawl, as it is now late; and, expecting to here from you soon,

I am, dear Sir,
Your much obliged.

To Wm. Dick, Esq.

No. II.

I wrote a scrawl to you on Sunday last, and forwarded the brain of a brown mare. The animal was bought on Friday, the 2d of July, 1846, and died in forty-six hours afterwards. Expecting that there might be a dispute regarding the money being returnable, I thought proper to forward the brain for your opinion, should it have been required. The horse-dealer has paid back the money, and all is settled.

I much wished to obtain a history of the mare previous to her coming to town, but have got nothing out of the dealer as yet: he says he knew nothing of the mare. As soon as I can learn any thing regarding the case I will write.

I am, dear Sir, your's truly.

11th January, 1846.

Copy of Reply.

Dear Sir,

I duly received both your letters, and also the mare's brain, which I took the opportunity of shewing to the class. It is a very good specimen of scirrhous tumours arising from the plexus choroides, which are most commonly the cause of staggers; these tumours going on gradually to increase, until some accidental cause excites more active disease, which soon destroys the animal. Although the tumours in this case are very large, I have some preparations in which they are larger. It is rather a curious circumstance that these tumours are commonly of a very firm consistence, and generally contain a gritty matter, apparently calcareous. The disease in this case is evidently of long standing, and there could be no doubt of the unsoundness having existed long prior to the sale, and that the dealer was bound to take the mare back. I have generally found in such cases that, although the animal might to a superficial observer appear in good health, there are some symptoms of disease of the brain to be traced long prior to more prominent symptoms of active disease becoming evident. There is, for example, generally a dulness and drowsiness, a very slow pulse, frequently a disinclination to move when the head is drawn forward, or, rather, the animal so affected is apt to draw back, or to rear up when pulled by the halter.

One of the preparations in my possession I obtained rather curiously. A horse was brought here (by the owner—a carter), affected with staggers. After making a few inquiries about him, I requested the man to move him forward, when, on pulling the halter, the horse reared up, the owner lost hold, and the horse

falling backward, struck his head so violently on the ground as to fracture his skull, which killed him on the spot. On dissection a tumour was found in each lateral ventricle of the brain, about the size of a hen's egg, or about one-third larger than those in the brain you have sent me. It is probable you will find that some of these symptoms had existed, if you can learn the history of the case.

I was requested to see a curious case of staggers, on Thursday last, at Bengour. A gentleman had ridden the horse about some covers, but a fox had not been discovered, and on stopping at the farm where I found him, he suddenly put his nose down to the ground, from which position it was impossible to get him to move it, until after being freely bled, and even then it was with difficulty it could be sufficiently raised to enable him with assistance to get into a loose box, near the door of which he luckily was when attacked with the disease. As the hounds had not found, I was informed the horse had been merely walking about, and was quite cool. Previous to being bled, the bloodvessels about his head became very much filled, and a strong throbbing of the carotid arteries was observed. When I saw him next day he had so recovered as only to shew a slight giddiness, which a little laxative medicine relieved, so that in three days he was able to be taken home, and is now apparently quite well.

Your's, sincerely,

WILLIAM DICK.

MR. WELLS' REPLY TO PROFESSOR DICK*.

To the Editors of "The Veterinarian."

Gentlemen,—PROFESSOR DICK, in noticing the communications of Mr. Fisher and myself†, states that he shall not, at present, answer them, in order that time may be allowed to shew what right we have to demand any information from him, or what he owes the profession. I am personally unknown to Mr. Fisher, and the light in which his communication is viewed by the Professor is equally unknown to me; but I think, in reference to my own, if it be re-perused, no demand of any kind will be found in it, but merely an expressed hope that the Professor would favour, not me alone, but the great body of the profession, with his mode of curing a disease hitherto considered by the best authorities as

* In allusion to the Professor's remarks in our Number for February, p. 97.
† These letters will be found in our January Number.

incurable. Consistency, gentlemen, is a principle to be admired by all persons, be their situations exalted or otherwise; and if I were Professor Dick, I would endeavour to act agreeably to it, either by giving the treatment of all cases observed upon, or none. I need hardly add, that such has not been the case with the Professor; for after the usual Monthly Report of Cases from the Edinburgh College in your last publication, several very judicious observations are made by him on some of the more interesting ones, and the treatment given even to minuteness. I allude to the cases of diseased brain, diabetes, quittor, paralysis of the rectum, and tetanus. Why the Professor should see it right to give us the treatment of these cases, and withhold it in others, I know not, unless it be to excite wonder and astonishment in the minds of his brother veterinarians south of the Tweed; a conjecture which, if true, to say the least of it, reflects little credit on a teacher of the veterinary art. I have now done with the subject, and beg to subscribe myself, Messrs. Editors,

Your's, most respectfully,

THOMAS WELLS.

Castle Meadows, Norwich,
February 14, 1846.

PROFESSIONAL ANNUITY FUND.

Messrs. Editors,

IN your impression of last month are suggestions for the establishment of a General Annuity Fund, by George Baker, Esq., Reigate. The plan meets with my entire approbation, in conjunction with the professional gentlemen in this locality, as well as those whom I have had any correspondence with at a distance. It would be quite superfluous for me to advocate the propriety of its immediate commencement after the elucidations the subject has received in this Journal at various times by different writers: there may prevail in the profession disparity of sentiment as a corporate body on minor points. But an Annuity Fund is personal, and comes home to ourselves and families, and I would fain hope that no difference of opinion prevails among us as to its paramount importance and utility. The only objections the practitioners I hear of in the provinces make are—Why do not the veterinary surgeons in the metropolis take the lead? If they do so, we will join them with heart and hand. Therefore, let procrastination and supineness be banished from the ranks. Let a provisional committee be formed at once, with an honorary secre-

tary, whom the members of the profession could correspond with, and transmit their names and addresses to for enrolment: that will bring the thing to the test. Messrs. Editors, we cannot pass you without at least one observation—we imply no censure, only a gentle hint, *en passant*—that, in your two last Leaders, no notice whatever was taken of the Annuity Fund, which certainly disappointed not a few, to my knowledge. *Nunc aut nunquam.*

I am, &c.

JAMES ANDERSON.

Leicester,
14th Feb. 1846.

To the Editors of "The Veterinarian."

Gentlemen,—IN the Number for January, Mr. G. Baker makes a proposal to establish a "General Annuity Fund" for the benefit of decayed members of the veterinary profession, their widows and orphans. The kindness and good feeling of such a proposal shew it to be one that certainly ought not to remain unaccomplished. The plan is both simple and feasible; it only requires union amongst the members of the profession to be carried out; and if the call is not responded to, low, indeed, must be ranked the philanthropy and union of the veterinary profession at large.

That a body now numbering more than a thousand members should have existed as a recognized profession for upwards of half a century without having long since acted upon a plan so plain and philanthropic does not say much for the unity or thoughtfulness of such body: it is, however, too painfully true to be commented on; for while every profession and calling has been carrying out such plans, the members of our poor devoted art have been looking quiescently on, without any effort to bring themselves together for any useful purpose. Not even so much as a society has been formed in which we, as a body, could or can meet on neutral kindly ground; but bickerings and animosity have been the only end of all and every attempt towards union. The records of the last fifty years painfully shew that every man's hand has been against his fellow; and even the last gain, that of "The Charter," which has raised the *status* of the profession to a higher level, has been made a means for further and more bitter disunion: let us, however, hope that the good feeling which ought to exist will be displayed; and were such feelings but once fairly and firmly shewn by the

moderate and right judging, who form the large majority of the body, faction must hide its diminished head: surely the adoption of such a proposal as Mr. Baker's is one which cannot be made an arena for the display of rancour of party or personal enmity.

It has often struck me, that the position of a professional man is not rightly understood. A trader, when he starts in the career of life, lays out a certain sum in the purchase of his stock in trade; and, supposing him to be ordinarily successful in his pursuits, even if he be not able to lay by a something towards the future support of those who may be near and dear to him, has, at least, his stock or original capital to leave behind, or to turn to useful purpose; further, supposing that his health should become impaired, he can obtain some one more or less capable of carrying on his business during the period he himself is incapacitated from attending to it personally; but when we reflect that the professional man lays out *his capital* in the cultivation of his mind, to fit him for carrying out that to which he has devoted himself, he has, in fact, made *his mind his stock in trade*, but which stock is so placed that no one save himself can render it available, no one under such circumstances can find another to turn to account such a stock in trade, supposing that loss of health or any untoward turn of circumstances render him unable to carry on his pursuits in person. And should he be prevented during his active life from making any provision for the future, he has nothing of his original capital in any way available for such purpose: it has been sunk, and is irretrievably gone. Again, the success of a professional man depends upon *confidence* being felt in his capability to exercise his profession with skill, and which is generally of slow growth, and which may be lost from no fault of his own: an untoward event entirely beyond his controul, the envenomed breath of slander, may at one fell swoop destroy a business which has been the labour of years to form. To this the trader is less exposed, because his pursuit is not so much dependent upon confidence as on the supply of necessities, or, what is equally of importance to very many, of luxuries; and should his commodity not suit one, it may another; but it does not follow that, should the acquirements of the professional man be unappreciated by one, they should be more truly estimated by another; for, resting upon opinion, it generally follows that if one utters an unfavourable opinion, others are always found to promulgate it; and hence we often see that a professional man is nearly or entirely ruined by the malevolence of one evil-disposed person to whom he may have unconsciously given offence; while to the trader it would not be of any moment. And if we add to these reflections the uncertainty of health and even life, it becomes doubly

imperative to do all in our power towards aiding and assisting in those plans or institutions which may, we know not how soon, be of essential service, if not to ourselves, to those that may be near and dear to us. I, therefore, sincerely trust that, now the proposal has once been made, it will not be allowed to drop.

I remain, &c.

W. A. CHERRY.

February, 1846.

STATEMENT OF THE CASES OF DISEASES AMONG DOMESTICATED ANIMALS OCCURRING AT THE EDINBURGH VETERINARY COLLEGE,

FROM THE 1ST TO THE 31ST OF JANUARY, INCLUSIVE.

By Professor DICK.

DISEASE.	NUMBER OF CASES.			DEATHS.		
	Horses.	Neat Cattle.	Dogs.	Horses.	Neat Cattle.	Dogs.
Abscess, in various parts ...	3	...	...	...	...	...
Brain, Disease of (Staggers)	1	...	...	...	...	...
Broken Wind	1	...	...	1	...	...
Bursal Diseases, with Lameness	1	...	...	...	...	...
Castration	2	...	...	...	...	...
Catarrh and Influenza	19	...	...	...	...	...
Choking	..	1	...	...	...	...
Chorea	...	1	1	...	1	1
Chronic Cough ..	1	...	...	...	...	...
Colic	20	...	...	1	..	...
Constitutional Debility	4	...	...	...	...	...
Curb, with lameness	6	...	...	...	...	...
Diabetes	4	...	...	...	...	...
Distemper	...	...	5	...	...	...
Docking ...	1	...	...	...	...	...
Enteritis	5	1	...	3	...	...
Epistaxis	1	...	...	...	...	...
Eyes, Diseases of....	6	...	...	...	...	...
Examinations as to Soundness	24	...	...	...	...	...
Ditto, as to Pregnancy	1	...	...	...	...	...
Farcy	2	...	...	...	...	...
Farcy and Glanders	4	...	...	4	..	...
Feet, Wounds and Bruises of,	23	...	...	...	...	...
Canker in	1	...	...	...	...	...
	130	3	6	9	1	1

Disease.	Number of Cases. Horses.	Neat Cattle.	Dogs.	Deaths. Horses.	Neat Cattle.	Dogs.
Disease brought forward	130	3	6	9	1	1
Feet, Corns in	4	...	...	..	...	...
Sandcrack in	1	...	...	...	...	...
Laminitis in	5	...	...	1	...	...
Navicular Disease in	3	...	...	..	...	...
Pumiced	1	...	...	...	...	...
Quittor in	3	...	...	...	...	...
Ringbone in	1	...	...	...	...	...
Seedy Toe in	1	...	...	...	...	...
Thrush in	2	...	...	...	...	...
Fistulæ and Ulcers	7	...	...	...	...	...
Fractures of Bones	4	...	1	2	...	...
Grease	13	...	..	...	...	...
Indigestion	5	1	...	...	...	...
Joints, Open	1	...	...	...	...	...
Lameness in Elbow	3	...	...	...	...	...
Ditto in Fetlock	5	...	...	...	...	...
Ditto in Hip	2	...	...	...	...	...
Ditto in Knee	2	...	...	...	...	...
Ditto in Pastern	1	...	...	...	...	...
Ditto in Shoulder	5	...	...	...	..	...
Ditto in Stifle	5	...	...	...	...	...
Nicking	1	...	...	...	...	...
Palsy	...	...	1	...	...	1
Parturition, difficult	...	...	1	...	...	...
Phlebitis	1	...	...	...	...	...
Phthisis	...	1	...	...	1	...
Pleurisy, Pneumonia, and Bronchitis	7	4	...	...	...	...
Strangles	1	...	...	...	...	...
Spavin, with Lameness	5	...	...	...	...	...
Splint, with ditto	3	...	...	...	...	...
Skin, Diseases of	11	...	1	...	...	...
Sprains in various parts	7	...	...	...	...	...
Tetanus	1	...	...	1	...	...
Teeth, Diseases of	9	...	...	...	...	...
Thrush in Mouth	1	...	...	...	...	...
Uterus, dropsy of	..	1	...	...	1	...
Weed	5	...	...	...	...	...
Worms	1	...	4	...	...	...
Wounds and Bruises, excepting Feet	19	1	...	...	1	...
	276	11	14	13	4	2

General Abstract.

Cases among Horses	276	Deaths in Horses	13
„ Neat Cattle	11	„ Neat Cattle	4
„ Dogs	14	„ Dogs	2
Total number	301	Total number	19

The cases which occurred during January have, upon the whole, presented so little of a different aspect to those composing the ordinary routine of practice here, that there seems little room for more than short mention of a few of them.

The case of broken wind occurred in a draught mare, the property of a carter in town, and was brought here in consequence of suffering from indigestion, for which she was treated with oily laxatives, and was much relieved, and the owner agreed that the effect of treatment for broken wind should be tried: there was not, however, any opportunity allowed for this, as the mare suddenly died the following day. The body was procured for dissection, and death appeared to have taken place from obstruction of the bowels, which, especially the large intestines, were impacted with hardened food and fæces. A small rupture had taken place, and some of the contents of the intestines had escaped into the peritoneal cavity. This case offering a favourable opportunity for investigating the pathological condition of the lungs in broken wind, these organs were examined, but no emphysema could be detected. There was some enlargement of the heart; but so far as the various pulmonary tissues were concerned, no morbid appearances could be detected, although broken wind, according to the owner's account, had long existed.

The case of chorea in a cow was not allowed by the owner to be continued under treatment more than two days, for fear the beast might fall off in condition, as she was pretty fat when the disease appeared; she was therefore sold to the butcher. The symptoms were,—involuntary twitchings of the muscles of the neck, accompanied by jerking of the head upwards and sideways, with closure of the eyelids. When made to move, she appeared in constant danger of falling; the pulse, although not much quickened, was weak; the respiration was not disturbed, and the secretions were much the same as in health. The slightest attempt to move her considerably increased the intensity of the symptoms, which at times were so severe as to lead the owner to suppose the animal would not recover, and she was accordingly slaughtered.

Amongst the "skin diseases" there was a case deserving notice. A brown gelding, belonging to one of the companies at the railway, was suddenly attacked with an excessive itching on the near-side of the neck and shoulder. He had rubbed off the hair, and large patches of the skin were raw and bleeding; there was also considerable swelling of the parts affected. He was bled, a dose of physic given, and mild mange ointment was applied to the seat of disease. On the following day he was brought back much worse; more of the hair and cuticle had been rubbed off, blood and serum oozed from the raw surfaces, and the medicine did not

operate. On the third day he was still worse; his bowels were not yet acted on, more purgative medicine was therefore given, and the ointment was regularly applied. The disease, however, continued to spread, until on the fourth day he had become almost denuded of hair, and the owners wished to know whether it would not be advisable to destroy him. The dressings were, however, repeated, and extended all over the body, and his bowels became opened. In a few days he was quite relieved. The hair is already covering the skin, and in a short time, if he continues to improve as he is now doing, no trace of the disease will be seen. It is worthy of remark, that other cases under this head were similarly affected, although in a minor degree.

The case of "seedy toe" occurred in a large farm horse: he had, for eighteen months, previously to being brought here, been repeatedly lame. There was a small round hole on the inside of the toe of the off fore foot; and a slight ridge on the crust extending from the coronet to the ground shewed that the disease reached from the sole to the coronet above. The aperture seemed filled with a hollow conical portion of hoof, that was attached to the inner surface of the crust, while pus or serum at times escaped from the sides of the cone. As it was impossible to reach the root of this substance with the drawing-knife, and as the horse was naturally troublesome to manage, he was cast, and the crust cut completely open up towards the coronet, so that the conical portion of horn could be carefully removed without wounding the quick. It was then found that this morbid horny growth had pressed upon the sensitive laminæ, until an indentation was actually made in the os pedis, in consequence of which pressure and irritation there was a discharge of serum and pus from the sensible laminæ. Having opened the part through its entire extent, the raw surface was dressed with chloride of antimony, and a pledget of tow dipped in melted tar applied, which was repeated daily. The case has now so far recovered as to be almost fit for work. These cases are often extremely troublesome and annoying to the veterinary surgeon, but can be easily and effectually treated by cutting through the crust, at the coronet, as above stated, or by cutting through the upper extremity of the sinus, if it does not extend so high. Proper dressings to induce the growth of sound horn are advisable, and a moderate degree of pressure is always necessary to prevent a bulging out of a morbid horny secretion from the laminæ.

Among the cases of wounds, a slight one of the nostrils may be noticed, to shew what may be frequently done to prevent deformity. A hackney, which a gentleman had recently bought, had caught his off nostril upon a hook or nail, which tore open a part of it, leaving a portion, about the size of a man's thumb, hanging loose. As the

stable was rather dark, and the day following wet, the wound had not been observed for upwards of twenty-four hours, when it was brought together by ordinary stitches: these, however, gave way in a few days afterwards, and the wound was again secured in the same manner, but it once more shortly gave way. As the owner was unwilling to have the piece cut away, the horse was sent here. The edges of the wound were freely scarified, and were then brought together and secured in the same manner as in pinning the neck after bleeding, or in the operation for hare lip in the human being, taking a good large hold of the edges. The pins were removed as adhesion took place, and in ten days complete union was effected, and a blemish avoided.

WILLIAM DICK.

Extracts from Domestic and Foreign Journals, Veterinary, Medical, and Agricultural.

PARISIAN MEDICAL CONGRESS.

[From the Lancet.]

THE French journals inform us that the requests of the veterinary section of the Parisian Medical Congress have been adopted by other influential public bodies, and that there is now nearly a certainty of the reforms which they demand being accepted and followed up by government, if not entirely, at least in part.

In each department in France there is a board (conseil general) elected by the inhabitants of the department, which sits for a certain time each year to discuss questions connected with agriculture and with the local interests of the department. These local committees are represented in Paris by a general board, which has recently given its formal adhesion to the views promulgated by the veterinary section of the Congress, views which we exhibited at length on a former occasion, (see THE VETERINARIAN, page 107.) The principal points to which the General Board of Agriculture has directed the attention of government, are the necessity of rendering veterinary studies more lengthened and more complete, and the duty of teaching veterinary students the subjects of agriculture and rural hygiene, as also every thing pertaining to the breeding and training of stock.

Although the Minister of Agriculture, to whom the above communications have been addressed, has not as yet made any official

answer, he has caused it to be understood that the wishes of the Congress, and of the Central Board of Agriculture, have been, and will be, seriously taken into consideration. He has even stated that the establishment of a large agricultural school has already been decided upon by government for the improvement of veterinary students. This school is to be located in a central department, and to be carried on in such a manner that agriculture and veterinary science will progress together *pari passu.*

The attempt which is now making in France to connect agriculture with veterinary science is evidently one of the most important "movements" that has taken place in modern times. It may, indeed, be said to be the dawn of a new era for the veterinary art. If success follow the praiseworthy efforts that are now being made in France—and success appears certain—veterinary science and its professors will very soon attain the high social position to which they are justly entitled. To the interests of society at large the advantages that must accrue from having a numerous body of scientific agriculturists disseminated throughout the country would be incalculable. They who cultivate the land are proverbially slow in the adoption of improvements. Wedded to the habits and customs of their forefathers, it is difficult, often impossible, to induce them to make any change, however conducive to their own advantage. No one would be more likely to have influence with this numerous and important class than the veterinary surgeon, to whom they are continually obliged to entrust their fortunes—that is, the lives of their flocks. Nothing, on the other hand, will so much tend to increase the personal respect and consideration of the veterinary practitioner as the acknowledgment on the part of his clients that he is really an authority in those pursuits which constitute their chief occupation.

From the knowledge thus acquired by veterinary practitioners we may, again, anticipate great benefit to accrue to agricultural science generally. The attention of a large body of well educated men cannot be constantly directed to any branch of knowledge without improving it. We might, therefore, legitimately expect that great progress would be made through the instrumentality of thoroughly educated veterinary practitioners in every thing connected with the breeding and rearing of cattle. A mass of most important information would thus be gradually accumulated respecting the physiology, the nutrition, the diseases, and the therapeutics of each of the varieties of domestic animals which constitute a great part of the national riches.

Were those who exercise the veterinary profession to be thus qualified, and to take the social position which we should wish to see them occupy, the good sense of both rural and town populations

would soon learn to discriminate between the uneducated and the educated practitioners. At the same time, the interests of society demand that the latter should be protected by the laws, as well as the ordinary medical practitioner; and it is to be hoped that, eventually, such protection will be liberally afforded.

The Wild Cattle of Texas.

[From the Times.]

THE settlers who have recently opened farms near the sources of the San Gabriel and Brushy, find the country well stocked with a singular breed of wild cattle. Large droves of these cattle are found not only on the San Gabriel, Leona, and other tributaries of Little River, but also on the San Saba, the Llano, and many tributaries of the Upper Colorado, far above the settlements. They differ in form, colour, and habits from all the varieties of domestic cattle in Texas. They are invariably of a dark brown colour, with a slight tinge of dusky yellow on the tip of the nose and the belly. Their horns are remarkably large, and stand out straight from the head. Although these cattle are generally much larger than the domestic cattle, they are more fleet and nimble, and, when pursued, often outstrip horses that easily outrun the buffalo; they seldom venture far out into the prairies, but are generally found in or near the forests that skirt the streams in that section.

Their meat is of an excellent flavour, and is preferred by the settlers to the meat of the domestic cattle. It is said that their fat is so hard and compact that it will not melt in the hottest days of summer, and the candles formed with it are far superior to those that are formed with the tallow of other cattle. Some persons have supposed that it is possible these cattle are a distinct race indigenous to America; and the immense skeletons of a species of fossil ox, with straight horns, that are often found in the beds of the Baazos and Colorado, would seem to strengthen this opinion. But as these cattle are now found only in the vicinity of the old missions, it is much more probable that they are the descendants of the cattle introduced by the early Spanish adventurers. It is said that a species of wild cattle, differing from all the domestic breeds of the Eastern continent, is found in the Sandwich Islands; but it is well ascertained that this breed is derived from the domestic cattle that were left on those islands by Vancouver. These cattle are so wild that they can only be caught alive by entrapping them in disguised pits. The celebrated botanist, Douglas, while

on a tour on one of those islands fell into one of the pits, and was gored to death by a wild bull who had been thus entrapped. Several attempts have been made by the settlers on the San Gabriel, to domesticate the wild cattle in that section, but they have thus far been unsuccessful. As they are far superior to the domestic cattle of the country, not only in size, strength, and agility, but also in the flavour of their meat and the density of their fat, they might, if once domesticated, become a valuable acquisition to the agriculturists of the country.

Houstoun Telegraph.

Calculous Affection of the Urinary Apparatus—Urethrotomy—Extraction of a Stone weighing a Kilogramme*—Consecutive renal Hemorrhage—Death—Post-mortem Examination.

By M. Symphorien Bouley, *V.S., Paris.*

[This Case was laid before the Veterinary Society of the Department of the Seine, at its Meetings on the 12th December, 1844.]

An English thoroughbred gelding, eight years old, that had for two years been the property of M. Boileau, a broker (*agent de change*), near the Bourse, Paris, was, notwithstanding its beauty, sold in May, 1843, for only 600 francs, to M. Pellier, post and fly-master, residing in the Rue Basse du Rempart, who, at the time of purchase, was informed that the animal was *corneur*, and that some time previously it had been operated upon for stone, and with success. Being consulted by M. Pellier a few days after the purchase with regard to the health of this horse, I observed that, whether in the stable or in harness it pawed incessantly, that it frequently strained, and, after having made violent efforts, usually voided a small quantity of thick bloody urine. Occasionally, but not very often, this fluid was voided abundantly, and without difficulty.

Notwithstanding its constant suffering, this horse, which usually ate well, did a very fair amount of work until the beginning of last June; but from that time it gradually lost its strength, and soon fell into such a state of marasmus that they were compelled to discontinue working it altogether.

Thinking that a run at grass might be of service to it, I advised that it should be turned out, which was done towards the latter end of July; but this regimen only appeared to aggravate its disorder, and in August it was brought back to Paris weaker than ever,

* A kilogramme is about 2¾ lbs. Troy.

and looking like a skeleton. The penis was then hanging down, and the urine, which flowed from it drop by drop, had corroded the internal surface of the thighs, legs, and pasterns.

Being desirous of ascertaining the nature and seat of this disease, which appeared to me so serious, I determined, somewhat too late perhaps, to examine the urinary organs. After having taken all proper precautions, I introduced my right hand into the rectum, and first of all ascertained that the bladder occupied its natural position, and that it did not contain any foreign body. On passing my hand backwards I afterwards perceived that there was a large, hard, firm tumour, of an ovoid form, situated at the back of the neck of the bladder, occupying the whole upper part of the pubis. But what was the nature of this tumour?—and where could be its seat? Such were the questions which naturally presented themselves to my mind, and which I endeavoured to resolve. Having ascertained that the tumour was not in the bladder, and not once imagining that a stone of such a size could be situated any where else but in this viscus, I at once discarded all idea of calculous disease. I then remembered that this horse had been operated upon for stone, and I conceived that, perhaps, under the influence of a bad constitution, some tumour of a scirrhous nature had developed itself at the neck of the bladder where the incision had been made. Prepossessed with this opinion, and considering it as well founded, I sought M. Dominique Barthelemy, who attended this horse before, in order to obtain some information on this point. I learned that this gentleman had, in his capacity of veterinary surgeon to M. Boileau, been frequently called on to treat the horse for slight attacks of colic, one of which one day had assumed an alarming appearance, and was attended with every symptom of retention of urine. After having relieved the animal by means of a catheter of Indian rubber, M. Barthelemy examined the bladder through the rectum, and perceived the presence of a stone of some considerable size in the interior of that viscus. Deeming the operation of cutting indispensable, on the following day he consulted with your honourable President, M. Barthelemy, senior, who, on examining the horse, remarked that a calculus of some size was fixed in the canal of the urethra below the ischial contour. An incision made on the left side of this canal allowed the calculus to pass out, and in less than twenty days the wound had healed, and the animal appeared perfectly recovered.

M. Dominique Barthelemy was in his own mind convinced that the calculus, which, according to him, had passed through the neck of the bladder during the night, was much larger when he felt it in that viscus; and he was of opinion that it had thrown off some incrustation while passing through the neck. I have made a point

of stating this opinion to you, though I can neither support nor contradict it.

As it was evident, from the above details, that no incision had been made in the neck of the bladder, I was compelled to abandon my hypothesis relative to the existence of a scirrhous tumour, and once more fall into uncertainty.

Wishing to escape from this embarrassing position, and to take some decisive step, I successively requested M. Barthelemy, senior, and Messrs. Bouley (my father, and my uncle), to assist me with their advice.

M. Barthelemy, sen., who, as I have before stated, knew the horse, had the kindness again carefully to examine him. After having, through the rectum, explored the bladder and the tumour, and seen the animal stale plentifully without apparent difficulty, this talented veterinarian was of opinion the tumour could not be in the urinary passages, and consequently there was no operation to be performed. He simply advised that an endeavour should be made to combat the marasmus by good feeding, and that, if that proved at all successful, the animal should be moderately worked. This advice was instantly acted upon by the owner, who, eight days afterwards, again brought the horse to me, stating, that as he could get no work out of it, he was resolved to have it destroyed, unless I chose to operate upon it, which I eagerly agreed to do for the benefit of science.

Nevertheless, before proceeding to do so, I resolved to make, in concert with my father and uncle, another and most careful examination of the patient, in order, if possible, to ascertain the actual position of the parts, and, above all, the direction of the urethra. A considerable quantity of warm water was therefore introduced into the urinary conduit and bladder, by means of a syringe inserted at the extremity of the canal of the urethra, and, when the parts seemed sufficiently distended, a ligature was passed round the penis, in order to retain the fluid. Notwithstanding that one of us had taken the precaution to place his right hand in the rectum during the introduction of the warm water into the bladder, it was perfectly impossible to follow the course of the urethra: as soon as the fluid reached the ischial curve, that canal suddenly disappeared from the eye as well as from the touch.

Not being able in this manner to arrive at any conclusion, we confined ourselves to exploration per rectum, and thus perceived, 1st, In the fore part of the pelvis, the bladder full to distention, protruding forward in its natural position; 2dly, a little further backwards, two prolonged eminences appearing, united in the median plane, and then to separate from each other from behind forwards, leaving between them a triangular space; 3dly and lastly,

still further backwards, a large oblong swelling, almost as large as the bladder, and appearing to form one body with it, containing the tumour.

Although we were unable to determine at all the direction taken by the canal of the urethra on arriving at the pelvis, and it was also impossible for us to form any definite judgment regarding the nature of the tumour, which we believed to be a calculus, and although we could not determine its seat, we resolved with one consent to attempt an operation, which was, however, postponed until the morrow, the animal being much fatigued by the experiments we had made, with a view of throwing light upon our diagnostic.

I shall now proceed to state the actual seat and nature of the tumour—the *modus operandi* put in force in order to extract it—the consecutive accidents which produced death; and, lastly, the organic alterations which a post-mortem examination brought to view.

Every thing being prepared for the operation, on the 24th of August, at 10 A.M., a large quantity of warm water was thrown into and retained in the urinary passages, in order to distend them. This precaution being taken, the animal was fixed and maintained in an upright position, supported against a stall. I then, in the presence of Messrs. Bouley, made an incision of about eight centimetres in diameter on the right side of the canal of the urethra, below the ischial curve. The water that had been injected spouted out violently, and at the same moment I recognized the presence of a large calculus, which I could both see and feel, and which appeared to me situated in a large swelling of the pelvic portion of the urethra. Considering that the incision which I had already made was not large enough, I prolonged it, at first downwards and then upwards as high as the *sphincter ani*, without, however, touching it, and thus making the incision about twelve centimetres in length. I next endeavoured to extract the stone with the aid of a pair of common forceps; but either the shafts of the instrument were not strong enough, or else the artificial opening in the urethra was too narrow to admit of the calculus passing through it.

As it appeared physically impossible to extract it in this manner, after having consulted together, it was agreed that an attempt should be made to break the stone. Not having the proper lithotric instruments at hand, we were obliged to contrive substitutes for them, and the following suggested themselves to us. One of the operators introduced his left hand into the rectum, drew the calculus backwards on the edge of the ischium, and, bringing it in contact with the opening which we had made, held it firmly in this position; the other two operators (of which I was one) armed

with a punch and a small mallet, struck the calculus firmly but gently, and succeeded in splitting it in pieces without much difficulty. All the fragments were carefully collected; and when we deemed the stone sufficiently reduced in size to admit of its passing through the incision, it was seized at the most convenient part between a pair of long concave forceps, and by judicious and cautious traction, slowly but completely extracted.

The extraction accomplished, it became easy to introduce the hand, not only into the bag which had contained it, but even into the bladder, whose gaping neck presented a circular aperture of some seven or eight centimetres in diameter.

During this painful operation, which lasted nearly forty minutes, the animal lost but little blood—not more than a pound and a half at most.

Immediately after the extraction of the stone I injected warm water repeatedly into the bladder and the urethral sac, in order to cleanse them from any clots of blood they might contain; and then, by means of a suture, I brought the edges of the two upper parts of the wound together, leaving the lower part open and free, in order, for a time, to afford passage to the urine.

When freed from the constraint of his hobbles the animal appeared in good spirits, and tried to eat. We only gave him, however, white water and straw. As, notwithstanding the poorness of the patient, symptoms of fever manifested themselves in the evening, three kilogrammes of blood were taken from him, and emollient clysters prescribed.

The three first days passed pretty well. The horse retained both spirit and appetite—lay down and got up again without much pain—voided urine without difficulty—no signs of fever; in a word, all seemed to promise a favourable result; when, on the 28th, the scene changed: the difficulty of getting up, which had existed previously to the operation, became more marked, and appeared to result from some paraplegia. Soon afterwards a fresh incident added complication to the original affection, and gave it a yet more serious aspect. After having made violent efforts to stale, the animal passed a considerable quantity of clots consisting of red blood, which appeared to have recently come out of the vessels through the wound. Notwithstanding repeated injections of iced-water into the bladder, this hæmorrhage, the source of which I knew not, came on again on the following days, and each time more and more abundantly; at length, on the eighth day after the operation, exhausted by loss of blood and suffering, the unfortunate animal, after long and severe struggles, expired.

Examination of the Calculus.—The calculus proved large and oblong, slightly flattened at the upper and lower surfaces, smooth

almost all over, and porous in some places, while in others it was *chagrinée*. It was thirteen centimetres in diameter, measured from the front to the back; ten centimetres in thickness, eleven centimetres in breadth, and one kilogramme in weight. It was composed of several layers, one over the other, and was thicker towards the exterior. In its centre was a soft foreign body, which appeared to serve as a kernel.

On being analysed by Professor Lassaigne, to whom I have to render thanks for his courtesy, the following appeared to be the component parts:—

Of 100 parts,	Animal mucus	3,5
	Soluble saline constituents	6,0
	Carbonate of lime . . .	84,6
	Carbonate of magnesia .	4,4
	Sub-phosphate of lime .	1,5
		100,0

So that we may easily convince ourselves by making comparative researches, that this stone has for its basis the same elements as those generally found in such calculi taken from the viscera of horses as have hitherto been analysed, with the exception of some very few trifling differences in the proportions.

Post-mortem Examination.—The principal viscera were in a healthy state—the urinary organs alone presented any remarkable pathological lesions.

The left kidney was hypertrophied, weighing more than three kilogrammes; its *cortical* substance was thickened, hard, and fatty, and could not easily be divided; while the tubular substance was infiltrated and softened, and had suppurated in several places: its pelvis was very much developed, and covered with an extremely thin membrane; but, otherwise, presented no sensible alteration. The *ureter* passing from this kidney was about two centimetres in diameter—the mucous membrane with which it is lined, healthy.

The right kidney was disorganized, had almost entirely disappeared, and only weighed 192 *grammes* (q^{y}. 9oz. 13p. 16gr.): its indurated tissue was thickly sewn with calculous concretions, which could with difficulty be cut by a sharp instrument. Its pelvis, in a manner speaking, no longer existed; the *ureter* which proceeded from it was considerably developed, and more than five centimetres in diameter, the membranes of which it was composed being thickened and flesh-looking. Two very hard stones, with irregular sides, were found in the interior of this passage; one close to its origin near the kidney, the other about three centimetres

from its insertion into the bladder. This latter appeared to have been impeded in its course by some contraction which it was unable to get through.

Besides this, a rupture of more than two centimetres in length was observable in the mucous membrane near the kidney, at the origin of the *ureter;* this wound was covered by a black clot of blood: and hence, doubtless, came those hæmorrhages which appeared during the few last days of the animal's life.

The bladder was nearly of its natural size; the neck presented a round opening of seven or eight centimetres in diameter. The ureters penetrated directly into it through two large insertions, which, under certain circumstances, were likely to permit the urine to flow back again into the ureters.

The cyst which had held the calculus communicated in front with the bladder, and behind with the canal of the urethra, of which it was but a dilatation; the membranes composing it were thinner than those of the bladder, and shewed no trace of any fleshy fibre. Lastly, the vesiculæ seminales, which were considerably longer than they usually are in geldings, communicated, as did the prostates, with this cyst by means of their natural ducts, which were abnormally lengthened.

Such, gentlemen, were the various lesions I observed. Not wishing to trespass on your valuable time, and your kind attention to me, I will now terminate this case, which has, doubtless, already occupied you too long, with one or two short observations.

I would, in the first place, gentlemen, have you to remark, that if vesical calculi are generally developed in the interior of the bladder, this one, the history of which I have just laid before you, was developed in the kidney. The two irregular-sided concretions of a similar nature which I observed in the right ureter, militate in favour of this argument. Lastly, I would add, that the excellent treatise on calculous affections, published in 1834, by your Honorary President, M. Girard, as well as other and more recent publications which I have consulted, containing no case similar to this, I consider myself authorized in believing this case to be one by itself, and without parallel in veterinary medicine.

It is you, gentlemen, who must decide whether or not this opinion, which I have the honour of submitting to you in the form of a doubt, is well founded or not.

Recueil de Médecine Vétérinaire, April 1845.

An Essay on sanguineous or apoplectic Congestion in Sheep, a Disease known under the Names of "Blood," "Blood in the Spleen," &c.

By M. Charlier, *V.S. at Rheims.*

[From the Recueil de Médecine Vétérinaire Pratique.]

If, among the various diseases to which the ovine race are subject, there is one more worthy of the attention of scientific men than another, it is indisputably sanguineous apoplectic congestions, otherwise known as disease of the blood, blood in the spleen, &c.: "rapid in its progress, frightful in its symptoms, disastrous in its effects, it frequently carries off the greater part of the animals that it attacks, and commits sad ravages among our finest flocks." Placed as I am in the centre of a highly cultivated district, I have, during five years of practice, had frequent opportunities of closely observing this formidable affection. Animated by the desire of being useful, and spurred on to my task by the reproach of an enlightened agriculturist, who, at a numerous meeting, accused us of not paying sufficient attention to the diseases of sheep, I consider it my duty to add such reflexions as the frequent and repeated appearance of this disease has suggested to me, to those veterinary writings already existing on this subject.

In publishing my researches on sanguineous congestion, I do not pretend that they are entirely new, or such as have not already appeared before the public; on the contrary, I candidly confess that the lectures I heard delivered by M. Delafond, at the Royal College of Alfort, as well as his excellent work on diseases of the blood, have frequently guided me in the study and examination of many of the facts that I have to relate; and had I not been so situated as to be able to study the disease under all its different phases, and observe every little point relative to it, I should never have undertaken to complete a picture in which the experienced hand of our learned Professor has left so little to be done.

One single point, which is still disputed, appeared to me worthy of the utmost attention of both veterinarians and agriculturists. I allude to the sudden appearance of diffuse or ill-circumscribed tumours, arising from a subcutaneous hemorrhage, which, by distending the skin and communicating to it a bluish hue, has so frequently caused this disease to be mistaken for a typhoïd or putrid affection. Uninfluenced by any preconceived idea, and without at all entering into the numerous conflicting opinions that have emanated from honourable and talented but somewhat too systematic men, I will simply narrate the results of my own

observations, and, with these proofs in my hand, endeavour to demonstrate that the disease of the blood, whatever may be the symptoms that characterize it, is by no means of a putrid or typhoïd nature, and that all those prophylactic means so suitable to such affections, would only prove injurious to sheep predisposed to sanguineous apoplectic congestion.

If, through this feeble essay I am enabled to render myself useful to men of science, I shall consider myself most amply repaid.

Premonitory Symptoms.—It has hitherto been asserted, that sanguineous congestion appears without any precursory symptoms. In point of fact, there is apparently nothing that would lead one to believe that the disease was about to break out in a flock.

The sheep appear in good health, they eat with appetite, their liveliness is undiminished, indeed they are more than usually vigorous, and frisk and bound over the ground. Nevertheless, an attentive examination of them will enable the experienced veterinary surgeon to detect a peculiarly bright and animated expression of the eyes; he will also see that the mucous membranes are coloured by the injection of the vessels; that the skin surrounding all the natural openings has exchanged its rosy hue for a deep red; that the respiration becomes accelerated, and the urine dark coloured or bloody. The dung is sometimes soft and covered with a slimy matter intermingled with blood; and at others, small, hard, bright, and striated with blood. This hardness is chiefly seen in winter when the sheep are fed on heating grain, or dry fodder. Blood taken from the jugular vein is of a deep red colour, unusually warm, and forms a clot of remarkable consistence. It is found rich in organic elements, especially in hematosine, but contains very little serosity.

Symptoms.—If, as frequently happens, the sanguineous apoplectic congestion suddenly declares itself in the internal organs, and principally in the chest, the abdomen, or the skull, a general debility will succeed to this plethoric state—to this excess of vitality. The sheep all at once ceases to eat, pauses, appears as if stunned, poises itself on its stiff and tottering legs—a convulsive motion agitates the lips—its inflamed and tearful eyes are no longer sensible of light—its flanks heave rapidly—it throws out its head—agitates the tail—moves the tongue—emits a frothy foam—opens the mouth and breathes through it. as well as through the nose—frequently totters, stumbles, and falls. Sometimes it rises again, voids excrement crimsoned with blood, and makes vain efforts to urine, and if he succeeds, only expels some filaments of dark coloured or bloody urine; lastly, the rattle is heard in its throat, the animal ejects a bloody froth through the nostrils, and dies in dreadful convulsions.

Such are the symptoms, the progress, and termination of internal apoplectic congestion, known by the name of blood in the spleen. But when the hemorrhage declares itself simultaneously in the organs of these large splanchnic cavities, and in the sub-cutaneous tissues, and especially when the external hemorrhage predominates, the course of the disease is less rapid; and to the symptoms, common to these two varieties of this affection, are united different outward signs. The skin of the natural openings, and all the visible mucous membranes, become pale or blue—the superficial veins are depressed—the sheep limps first with one leg, then with another; but it is the hinder limbs which are generally affected. The animal is dull, depressed, out of breath, ceases to eat, and loiters behind the rest of the flock. Large ill-defined tumours of a reddish violet hue appear under the skin, chiefly on the inguinal and axilliary regions, but sometimes on the loins and throat. These tumours, that soon extend themselves both in length and breadth, take on a blueish tint, and then become black, and propagate themselves rapidly under the form of infiltration over the internal surface of the thigh or the legs, or from the dorso-lumbar region to the lateral surface of the abdomen and thorax. Blood is then shed in the tissues, begins to decompose, and its constituent elements separate. The tumefied parts are rapidly increased in bulk by this sanguineous infiltration. The tumours extend themselves in all directions over the body, giving to the skin a livid tint, which is deeper according as the cellular tissue is loose or abundant, the sanguineous collection great or small, and the skin coarse or fine. The animal then falls; sometimes it swells; it breathes with difficulty; the air expired is cold, the extremities and the surface of the body grow cold, and if an internal hemorrhage has suddenly come on in the interior of the abdominal or pectoral organs, at the same time with the external tumours, a discharge of more or less pure blood will be seen flowing from all the natural openings, and the animal soon dies.

Under these two forms, the disease will sometimes destroy the animals attacked in less than twenty minutes. At other times it will last several hours. Lastly, when the exterior hemorrhage predominates, and especially when it has its seat in the posterior regions of the body, this affection may last two or three days.

Post-mortem Appearances: the Examination made at the moment of the supervention of the Hemorrhage in both Varieties of the Disease.—If the animal is destroyed at this stage of the disease by effusion of blood, and the congestion and hemorrhage have been principally declared in the external regions, the skin, the cellular tissue, and the flesh of the healthy parts and the internal organs offer no abnormal appearances, but in skinning the carcass a great

quantity of the blood congested in the capillaries flows out from the diseased parts.

The internal surface of the skin, the sub-cutaneous, and inter-muscular cellular tissue, the lymphatic ganglions, and the muscles are gorged and impregnated with black blood, which gives to all these parts a deep red hue, changing to more of vermilion on being exposed to the air. Beside this hyper-colouration of the diseased tissues, large clots of blood are found separating the skin from the tissues beneath it: in a word, all the lesions accompanying sanguineous congestions followed by hemorrhage are found here. When the hemorrhage has declared itself simultaneously both externally and internally, which chiefly occurs in young and vigorous animals, sometimes it is the lungs that are congested, at others the spleen which is gorged with blood; at others, the vessels of the cellular tissue surrounding the loins are gorged with blood, and sometimes the mesenteric glands are found very much distended or even ruptured: then, as in the exterior, clots of dark coloured blood are found between the parts. Sometimes it is the capillaries of the cerebro-spinal organs that become the seats of the congestion and hemorrhage. In fine, this sanguineous turgescence may prevail throughout one whole set of organs, without any alteration being apparent in the others. The blood can also spread itself in sheets over the surface of the intestinal and bronchial mucous membranes, in the pelvis of the kidney, the bladder, and the womb; but it is when the disease is more advanced and has progressed rapidly that this phenomenon is observed.

Examination made at the Death of the Animal when the Disease has gone through all its Phases and a subcutaneous Hemorrhage has taken place.—Here the surface of the body is of a livid hue. The skin of the diseased parts, although firm in substance, is of a bluish black hue on the outer surface, and of a deep red on the inner one; the sub-cutaneous superficial cellular tissue of those parts where hemorrhage has taken place, is infiltrated with a reddish serosity, which gives to it the appearance of a trembling jelly. The superficial veins are strongly injected with black and often coagulated blood. Some bloody clots of a blackish red hue are found in the substance of the deep-seated cellular tissue, as well as in the flesh of the diseased parts: these, already softened and impregnated with the colouring matter of the blood, appear of a reddish violet colour; but this is almost entirely got rid of by washing, and if boiled, they lose all consistence, and are reduced to a kind of pap. This sanguineous effusion so closely resembles that arising from violent contusions, that an unpractised eye might easily mistake one for the other.

The inguinal, axillary, dorso-lumbar, and submaxillary reigions

are the principal seats of the external disorders I have described. Sometimes, all the parts composing these separate regions are confounded together by the sanguineous infiltration.

Thoracic Cavity.—If the sanguineous turgescence is manifested in the respiratory organs as well as in the exterior regions, the lungs are highly congested and augmented in volume; their organic tissue, already softened by blood, easily tears, and if touched with a sharp instrument, a greater or less quantity of black coagulated blood escapes. The bronchia and their ramifications are filled with a frothy bloody liquid. The bronchial ganglions, those at the entrance of the chest, are enormously gorged with blood, and contain a considerable quantity of colouring matter, which gives them a deep complexion. This immense tumefaction, with a deep red tint (which I have seen several times in the ox in similar cases) made me take the lymphatic ganglions for melanotic tumours at first; but subsequent observations shewed me my error. The pleuræ themselves in general present no alterations; but where the post-mortem examination has been delayed, a bloody serosity is frequently found in their cavities. In lambs, the thymus glands, and the loose cellular tissue which surrounds them, are gorged with black blood, giving them the appearance of an immense bloody clot.

The abdominal Cavity.—When sanguineous congestion is manifest in the abdominal cavity, the principal parts of the organs are red and tumefied. The spleen is often double, nay, quintuple its natural size; and it is soft or diffluent, gorged with black liquid blood, that cannot be got rid of by washing, but with great difficulty. The liver and the kidneys are likewise, in some cases, choaked with blood; but their tissue retains its firmness. The lymphatic ganglions of the mysentery, of the sub-lumbar region, are red, and often blackish. The loose and abundant cellular tissue which surrounds these parts is often also imbued and tinged with blood; black clots of this fluid are sometimes formed in the loins, and plastered on their surface. The hemorrhage also shews itself in the layers of the mysentery, and in the sub-mucous cellular tissue of the small intestines chiefly. Lastly, the blood may have pervaded the mucous tissues of the same, and that of the pelvis of the kidney and the urinary bladder. The clot presents some arborizations, and is even thickened in parts. The rumen, the maniplus, and the reticulum, are not visibly altered.

The cranial Cavity and spinal Canal.—The sanguineous congestion frequently extends itself to the cephalic organs. Then the sinuses of the dura mater, the capillary vessels which traverse the external surface of the brain, and the spinal marrow are filled with black coagulated blood. The choroid plexus of the brain, and the

hind parts of the brain are gorged with blood. The cerebral substance and that of the spinal marrow shews no material alteration.

The circulatory Apparatus.—The pericardium sometimes contains a tolerably large quantity of blood, mixed with serosity. In all cases the right ventricle of the heart contains a great deal of more or less coagulated black blood—the left one not so much : the auricles also have their share. The fluid, which is almost always coagulated, gives to the external surface of these cavities a marbled hue of black and white, resembling gangrene. The venæ cavæ, the jugulars, the venæ portæ, and all their ramifications through the organs, are filled with black coagulated blood, in the form of cylindrical clots, lacerable with difficulty, and which throw up the arborescent appearance in strong relief throughout the organic tissue. The internal membrane of the heart and the large arteries retain their natural colour.

Such are, in general, the morbid lesions that present themselves a short time after the death of sheep that have died of disease of the blood ; but when the post-mortem examination is delayed the body swells, decomposes, and rapidly putrefies. The flesh, the tissues, and, in fact, all the organs, reddened by this sanguineous effusion, become vermilion on being exposed to the air. The coagulated blood in the vessels alone preserves its consistence and its black hue.

Nature and Ætiology of the Disease.—Although not long ago many authors of high standing have given the names of *gastro-enteritis, white, putrid, typhoïd fever,* in sheep, &c., to the disease of the blood that I have been describing, I am far from agreeing with them. Like M. Delafond, I consider that this disease has its seat in the circulatory system ; and, making use of his very words, I should say, " that it is the result of a too great proportion of globules, fibrine and albumen in the blood, and a too small proportion of water." In order to prove the validity of this assertion, let us recall to mind those morbid phenomena which take place in the organization from the commencement of the disease until the death of the patient. Thus, in the first period, we have a manifest injection of the capillary vessels generally ; an injection which outwardly betrays itself by the redness of the skin, and of the visible portions of the mucous membranes. Secondly, a thick coagulable blood, which rapidly forms itself into firm, dense, and highly-coloured clots, and in which the serosity is, in a manner speaking, imprisoned. Afterwards, or at the second stage, this *rich* and *abundant* blood, on account of the plethora of the vessels in which it is congested, effuses itself over the organs, spreads upon and penetrates them ; then it is that the phenomena of decomposition ensues. At the third period or stage the constituent elements of

the blood effused through the living tissues separate themselves. On one side the fibrine, mingled with cruor, presents itself under the form of clots of a more or less deep red; on the other, the serum forms an infiltration through the cellular substance; lastly, the colouring matter, or hematosine, imbues the tissues, and gives to them that violet hue which is apparent both before and after death, and which colour has, doubtless, been the cause of the mistaken notions entertained as to the nature of this disease.

In order to make myself clearly understood on this point, I shall here observe that, to me, sanguineous congestion in sheep presents itself under two apparently distinct forms: although it is identical in its nature it always arises from a plethoric state, and presents no difference to the eye of the observer until the hemorrhagical effort makes an irruption into the internal organs only, or the subcutaneous tissues, or internally and externally at the same time.

These gangrenous tumours covered or surrounded with phlyctenæ have never, to my knowledge, been met with in animals affected with disease of the blood; nor are any gangrenous lesions, properly so called, and arising essentially from that disease, ever found on post-mortem examination.

That species of gangrene which is often seen on the womb of the ewe that has miscarried is, in my opinion, simply the result of excessive inflammation of that organ, or rather, of a putrefaction induced by the parching contact of the air with the blood. In typhoïd and putrid fevers, on the contrary, all the essentially vascular organs are rapidly gangrened, either from the presence of some morbific principle in them, or from the asthenic effusion of blood vitiated by a virulent element.

After these reflexions, are we not authorized to conclude that, in this disease, the escape of the blood from its natural conduits is caused, first, by the vessels being too full; secondly, by the blood being so rich as to render its course through them difficult; third and lastly, by the impulsive power of the centre of circulation.

If we now recall to mind that in this affection, besides the gorged state of the vessels, there is an increase in the power of aggregating the constituent elements of the blood, all idea of a typhoïd disease will be entirely rejected.

Causes of the Disease.—From my numerous observations I am enabled to state these in the least doubtful manner.

1st. That sanguineous apoplectic congestion, in both its varieties, may shew itself in a sporadic, enzootic, and epizootic form, in all localities, at all seasons, in the open air or in the fold, but chiefly at pasturage, and in winters that succeed to dry, hot summers.

2d. That it is much more fatal in places where the soil consists of a marly clay, or a ferruginous sand, and is naturally dry; where

the herbage is fine, drawn up, and but slightly tufted than in those where the arable soil is essentially peaty, or muddy and damp, or when the herbage shoots plentifully, is light, and not very succulent.

3d. That it manifests itself particularly in the fold when the summer is dry, and the flock, weakened by a scanty allowance, is suddenly folded on a rich pasturage that feeds them to satiety; and during winter, when the sheep are allowed too large a ration of rich and nutritive food, such as vetches, tares, lentils, barley, oats, &c. &c.

4th. That sheep which are regularly well kept, and occasionally over-fed, are more liable to the internal sanguineous congestion known as blood in the spleen, than to the sanguineous congestion attended with external hemorrhage. Green food, and particularly common clover, suddenly given in great abundance, is sure to produce this first variety of the disease of the blood; whereas tares and all heating grains have a tendency to determine the external sanguineous congestion.

5th. That in farms the managers of which have the good sense to give turnips, beet-root, or other roots with heating grains, or even boiled grain, which, although highly nutritious, passes very gradually from one mode of feeding to another, the disease rarely appears, or, if it does so, is not nearly so fatal.

6th. Lastly, I have myself repeatedly observed that sanguineous congestion is almost entirely unknown to small farmers, who generally have no artificial meadows, and are obliged to pasture their sheep as well as they can on the skirts of woods, by road-sides, &c., and in all kinds of weather; and that this affection will at the same period and in the same district be making frightful ravages among the beautiful flocks of our great agriculturists, while the small farmers' half-fed and often weakly sheep entirely escape.

The insalubrious air of close ill-ventilated sheep-folds, where the animals are crowded together, the putrid emanations arising from stagnant water, marshes, ponds, drains, &c., are causes which rarely, if ever, exist among us, but which might, undoubtedly, produce putrid or typhoïd fever in animals predisposed for disease of the blood; but where such is the case, it arises from a merely accidental complication, which is as liable to take place here as under any other circumstances.

I am not of opinion that ameliorating the land with manure has any thing to do with the development of this disease; for on many farms where the greater part of the flock have fallen victims to this disease, the soil has been scarcely if at all manured; while in other places, where manures are plentiful, and the land is thoroughly and frequently dressed with peat ashes, lime, and marl,

the disease is seldom seen, and, when it does appear, assumes a mild form.

Formerly, and at no very distant period, it was the custom hereabouts, and in many other parts, to turn the flocks out at all seasons and in all weathers, to pasture on the stubble-fields and on the fallows. Temporary meadows being but little known in France, the only food given in the sheepfold during winter was straw and other kinds of dry fodder, and now and then cereals or leguminous plants. The sheep were then poor and weak; their blood was serous and poor: if the season proved rainy, and tender aqueous herbage shot up, cachexy was sure to make its appearance, and decimate the flock. At the present day the sheep generally are strong and robust: the number of the globules is already increased by crossing the breeds*, as also is the albumino-fibrinous elements by the nutritive regimen to which they are submitted. Any one going over the farms in this district during winter, or at the beginning of spring, or the latter end of autumn, will see that the flocks are fed with an abundance of succulent and heating fodder. In the summer they are only turned out when they can be put upon grass pastures, and then, if from bad weather, or from the heat of the day, the flock is obliged to be folded, a quantity of succulent fodder is immediately given. What is the result of such a dietary system? Why, that cachexy has almost entirely disappeared, and even in wet seasons is now rarely met with here, and apoplectic sanguineous congestion is very frequent. On this important point with regard to the etiology of the disease, as it must determine the prophylactic treatment, I am happy to find that my views agree with the opinions already put forth by several eminent agriculturists and veterinary surgeons; as Tessier, Huzard, Girard, Yvart, D'Arboval, and Delafond. Besides, do we not all know that good food makes good chyle, and that good chyle makes good blood?

If, then, rich fodder is suddenly and profusely given, can we wonder that an abundance of rich blood should be formed, which predisposes the animal to sanguineous congestions?

The soil of our mountainous district is various in nature, but generally healthy, notwithstanding that we have much wood and many rivulets: the air is clear and dry; the water pure and wholesome, and stagnant ponds or marshes are seldom met with. The folds, which are usually raised above the level of the soil, are large, well ventilated, cleaned out frequently, and plentifully supplied with litter. The chief if not the sole cause, therefore, lies in the alimentary regimen: to seek for it elsewhere, were merely to call upon the imagination to create fresh hypotheses.

* See "Recherches sur la Composition du Sang de quelques Animaux domestiques, dans l'Etat de Santé et de Maladie;" by Messrs. And. Govaret and Delafond.—*Rec. de Med. Vet.*, vol. xix, p. 178.

Wherever there is a superabundance of heating food there the disease appears. Give vetches or any other vegetable, and you will inevitably produce sanguineous congestion. This indisputable fact is well known to all scientific agriculturists, and I have frequently verified it not only in the sheep, but also in oxen, pigs, and horses, and even in poultry. Far be it from me, however, to deny that other causes may unite themselves with this excess of food. Thus want of exercise, by increasing the quantity of blood, which in a quiet state undergoes no loss, will tend to induce the disease in oxen as well as sheep. Too great dryness of the air, excessive heat, dust, the burning rays of the sun to which our flocks are exposed while pasturing, are all causes that, by taking from the blood its serosity by means of cutaneous and pulmonary transpiration, induce it to thicken and stagnate in the organs. Rapid journeys, a too plentiful meal, the influence of air charged with electricity, sudden changes of temperature, violent rains, &c., all may, I know, develop this disease. But I repeat, that sanguineous congestion is never developed without a stimulus, and this stimulus is superabundance of food. What proves beyond a doubt that this is the actual cause of the disease is, that in other parts, on the same farm, the disease will attack the youngest and most vigorous sheep, and spare the others that do not thrive so well.

The nature of the soil, its greater or less degree of drought, the hygrometrical state of the atmosphere, especially during the growth of vegetation, are circumstances which appear to act very powerfully in the development of this disease; but these operate only in an indirect manner, by giving to the vegetation more or less nutritive qualities. Thus in 1840 and 1842, when the plants having vegetated in a warm dry atmosphere contained a great proportion of nutritive matter in a small compass, we saw this disease committing fearful ravages throughout the whole year, and especially during the winter. In 1843, on the contrary, the summer having been more rainy, the plants were luxurious but not very nutritious: the congestion then committed very few ravages, although the animals were, to all appearance, better fed than on the preceding year.

From what has already been said, I should think that no discerning mind would entertain the supposition that a young and vigorous sheep, with quick and animated eyes, that on being bled yielded a thick plastic blood, would in a few hours become affected with a typhoid or putrid fever, and that without known causes or direct infection. "In order," most judiciously observes M. H. Bouley, "that such an alteration of the nutritive fluid may be developed, it is necessary that the economy shall have been for some time subjected to injurious influences, which acting upon the whole system by modifying, altering, and vitiating the organic

function, produces an alteration and vitiation of the circulatory fluid."—But here, I repeat, no such influences exist.

We have, then, as is evident, merely a sthenic consanguineous congestion, general or partial, according to circumstances, arising essentially from the blood being too rich, and the animals in too high condition; a congestion induced by a plethoric state arising from a superabundance of too nutritious food.

[To be continued.]

THE VETERINARIAN, MARCH 1, 1846.

Ne quid falsi dicere audeat, ne quid veri non audeat.—CICERO.

WE can assure Mr. Anderson—whose letter appears in our pages—that we had not forgotten Mr. Baker's truly philanthropic "Suggestions for the Establishment of a General Annuity Fund." We have been waiting to hear the sentiments of the professional body on the subject. As yet, however, we have received but two communications thereon—one from Mr. Anderson, the other from Mr. W. A. Cherry. After the pathetic and eloquent appeal of Mr. Baker—in our number for January—we had, we must confess, reckoned on receiving more letters than two by way of response. Should that appeal—the re-perusal of which we strongly recommend—fail, we should, for our own part, despair of success. Mr. Cherry's communication is forcibly argumentative in favour of the scheme; but, surely, argument in any shape can hardly be requisite to induce men—members of a common profession—to embark in an undertaking, at comparatively little cost to themselves, which, in the day of old age or sickness coming upon them in narrowed circumstances, or of their leaving behind them wives and families unprovided for, promises sustenance at least, if not a provision, for them. The groundwork of Mr. Baker's scheme speaks for itself. Five hundred members are required to subscribe annually a guinea a-head; an increasing stock, which—provided it be left untouched and have all accumulative interest added to it—will, at the expiration of five years, amount, together with the annual subscriptions, to a yearly income of £600, available for the purposes and objects of the General Fund. Now, the first thing to be done is, as near as we can, to ascertain what number of subscribers we are likely to have. The General Meeting of the Chartered body, which will take place on the first Monday in May, will afford an excellent occasion for bringing the subject forward. In the mean-time we shall be happy to hear from such of our readers as think well of the project.

MISCELLANEA.

The Buffy Coat of the Blood.

The following conclusions are some of the results of a large number of experiments made on this subject by Mr. Gulliver:—

1. There is a remarkable acceleration, after a few minutes, of the rate with which the red corpuscles sink in the liquor sanguinis, and in the serum alone though to a less degree.

2. This acceleration may be increased by increasing the aggregation of the corpuscles, and prevented or reversed by preventing or restoring the aggregation of the corpuscles.

3. The sinking of the corpuscles may be slower in blood thinned by weak saline solutions, than when mucilage is added with the salt.

4. The sinking of the corpuscles is slower in serum made thinner and lighter by weak saline solutions, than in serum made thicker and heavier by mucilage.

5. In the blood of the horse the buffy coat forms regularly, and the red corpuscles unite, as if partly fused into each other, and collect into masses.

6. There may be no buffy coat, or but a comparatively thin one, on this blood when it has been made thinner and its coagulation retarded.

7. The formation of the buffy coat is neither due to an attenuation of the liquor sanguinis nor to a diminution of its specific weight, nor to its slow coagulation, but to an aggregation and quickened sinking of the corpuscles.

8. These facts are favourable to the old doctrine of viscidity of the blood and union of the corpuscles, and against the more recent doctrine of attenuation of the blood.

9. The corpuscles of the horse sink much quicker in his serum than the corpuscles of man do in his.

10. Increasing the proportion of corpuscles hastens coagulation and diminishes the formation of the buffy coat, more than increasing the serum only.

11. Increasing the proportion of water simply does not hasten the coagulation of the blood, as increasing the proportion of serum does.

ERRATA IN THE LAST NUMBER.

At page 78, line 21, omit the word "*as*."
... 82 ... 32, *for* "fæces," *read* fever.
... 83 ... 20, *for* "if *we* want," *read* if *I* want.

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LAMENESS.

By W. PERCIVALL, *M.R.C.S.*

[Continued from p. 130.]

PATHOLOGY OF SPAVIN.

THE CONSTRUCTION AND ACTION OF THE HOCK JOINT, complex as the articulation is, and different from all others with the exception of the knee, being a requisite preliminary knowledge to the due understanding of the nature and consequences of spavin, it may not be out of place here to make a few remarks on this introductory part of our subject. The joints of the hock and knee—unlike joints in general, which are composed of two, or, at most, three bones—are constituted, respectively, of several bones, having articulations between them, which, besides being for the purposes of motion, are made useful in counteracting concussion. There are no less than ten bones, and nearly as many joints or articulations, concerned in the composition of the hock; though but two of the bones, with the joint they form between them, are absolutely necessary for flexion and extension. The other smaller articulations, though contributing to motion, being especially serviceable in diverting or warding off concussion from the principal joint—that between the tibia and astragalus. In particular, the large and middle cuneiform bones, and the small metatarsals, are concerned in this latter function: hence it is, that these are the structures which—as we shall discover hereafter—are especially subject to disease. Concussion, however, operates differently in one instance from what it does in the other. Any force or shock received by the cuneiform or cushion bones is transmitted at once upon the large metatarsal bone, and along it conveyed to the pastern, and thence to the foot; whereas, pressure

made upon the small metatarsal bones is received by the elastic fibro-cartilaginous substance uniting them to the large bone, they having no bony supporters. In the one case, therefore, concussion would operate upon the bones themselves, in the other, upon a soft inter-osseous substance: consequently, the articulating surfaces—their synovial membranes and articular cartilages—would be the parts to suffer in the cuneiform bones; the inter-osseous fibro-cartilaginous attachments, the parts to fail in the small metatarsal bones. Leaving the former for consideration hereafter, I shall at present devote my attention to the metatarsal joints.

PROFESSOR COLEMAN'S OPINION was, that spavin originated in splent of the hind leg. His words, in his Lectures on the subject, are, "The nature of spavin is, that the substance which connects the small to the large metatarsal bone, being violently put on the stretch (for it is highly elastic), inflames; and the result of this inflammation generally is, that ossific matter is effused, and becomes the medium of connexion between these bones. The alteration, however, does not stop here; for bony matter continues to be deposited, so as to form a tumour on the inner side of the hock. In ordinary spavins, however, inflammation is not confined to this (inter-osseous) substance, but extends more or less over the hock; though *the tumour generally forms at the head of the inner small metatarsal bone.* And when once a spavin or splent has taken place—for *they are of precisely the same nature*, only that one is situated in the fore, the other in the hind legs—the disease must for always remain."

About the *seat* of spavin there is no room for dispute—the tumour almost invariably grows in the same place. Still, it has been remarked by the closest observers to be, in respect to elevation, either—what they have called—"high" or "low;" by which is meant, to be situated either upon the cuneiform joint of the hock or beneath it. In the latter case, having no relation whatever to the hock save proximity of site, the spavin would, to all intents and purposes, amount to no more than a *splent;* whereas, in the former case, it would be a genuine spavin. Now, that the one may, and sometimes does, originate in the other, there is sufficient evidence to shew; at the same time, it must not be forgotten that the majority of the cases presented to us in the form of *low spavin*, or veritable splent—"knots," as dealers call them—unattended by any lameness, continue free from the supervention of the spavin which produces lameness: at least, this I give as the result of my own observation. I do not mean to deny the truth of the Professor's doctrine, that spavin originates in splent: I only mean to contend that such is not the *common* or *usual* way in which the disease commences, and that hind splents, or, what

means the same, low spavins, are seen existing for years upon horses' limbs without giving rise to high or genuine spavin and lameness. And this it was that led old authors on farriery, from Gibson downwards, to make the remark, that high spavins were "dangerous" when compared with low spavins.

THE PATHOLOGICAL SEAT OF SPAVIN must be looked for upon the cushion* bones, upon the joints they form between each other, as well as with the metatarsal bone below, and the astragalus above. Too much weight thrown upon these bones and joints, shocks of concussion coming upon them, excite inflammatory action in their articular cavities and outward connexions and coverings, and the result is, ulceration of the one, ossification and exostosis of the other. So long as lameness is present, without tumour or other external sign, it would seem either that the disease was confined to the articulating surfaces, or else that osseous deposition took place in parts where, externally, it could not be detected. It must be remembered, however, that the ordinary case of spavin consists in the appearance of exostosis and lameness together: at least, from any report or history we in general obtain, we are unable to say which of the two has made its appearance the first. Therefore it would seem, in the generality of cases of spavin, exostosis being a primary symptom, that the inflammation originated in the ligamentary and periosteal tissues uniting and clothing the cuneiform bones; and that the inner in preference to the outer side of the hock joint became affected from the stretch and strain on that part being the greatest, in consequence of the inclination of the limb and preponderance of the weight to the inner side, rather than, perhaps, to the circumstance of the independent articulation of the inner small metatarsal bone, for we know that exostosis is not confined to the spavin-place. In post-mortem examinations we find coatings of osseous matter extending round upon the *front* of the cuneiform joints: and such more frequently, I believe, exist in this situation than we are apt to imagine; since in the living subject it is difficult, often impossible, to detect exostosis in this situation, on account of the osseous depo it being concealed by the ligaments of the cuneiform bones, as well as by the tendon of the flexor metatarsi. Cases, however, do present themselves, in which tumour in front is, by close observation, to be detected.

WHEN ONCE EXOSTOSIS HAS FORMED, there seems hardly any limit to its extension. Certainly the higher it grows the worse its effects it becomes; for then, not only are the cuneiform joints rendered anchylosed by it, but that with the astragalus as well;

* I call the two large cuneiform, *cushion* bones; resembling as they do, *in situ*, cushions placed one upon the other.

nay, the very main joint of the hock itself is threatened with anchylosis. I have also seen instances—and in the different veterinary museums exist preparations of the kind—in which the articulatory mechanism of the hock has been encrusted and rendered entirely immovable by a complete coating of exostosis. In general, however, the ossification is confined to the two cushion bones, they commonly being the first to contract bony union; next to them, the articulation between the lower cushion bone and the large metatarsal appears to suffer; lastly, that between the upper cushion bone and the astragalus.

Ready-formed Spavin attended with Lameness being the case usually presented to our notice, it becomes of importance that we should, as well as we can from observation and experience, make ourselves acquainted with the rationale of a case so common. Supposing it to be a first attack and a recent one, the owner of the horse representing that he has never been lame of the limb previously, it is of some consequence to know whether there had occurred any precedence in the appearance of the tumour and the lameness, also the period of time which one or both had taken to discover themselves. My own experience inclines me to the belief that in most cases the tumour of spavin is preceded by lameness: either the horse has been noticed to limp a little in first stepping out of his stable, or to go stiffly with the limb in action, or else to move in his stall stiffly upon it, or to rest it in preference to the opposite limb. One of two things seems certain in these cases; either that the tumour, if of slow growth, has occasioned the animal little pain or inconvenience while forming, or that the exostosis, keeping pace with the progress of the lameness, has been of rapid growth: of which alternatives I am disposed to adopt the latter, and for reasons that will best appear in the annexed case, one selected from others whereon observations made had proved similar:—

In July 1841, Captain B—— requested me to look at his second charger, the animal having gone, as he said, "very lame behind, the day before, while being ridden out." I examined the horse, but could detect no lameness whatever, although the trial trot, and sudden pull up, and turn-about, were several times repeated; neither did there appear any thing about the limbs to argue the presence of lameness. I therefore sent the horse back into his stable, with a message to his master to the purport that he must have "fancied" his horse lame, for I could discover no lameness about him. In the course of conversation, however, on the subject, the day following, the Captain persisted his horse had gone palpably lame, although he afterwards admitted that the lameness had disappeared in the course of his ride. Four days after this,

the horse was brought to me again, and on this occasion it was in the morning, prior to his having had any exercise. The case was now evident enough. The horse went limpingly lame in the near hind limb, and I had hardly cast my eye upon it before a large and prominent spavin caught my observation. This could not have existed—at least in any such prominent form—at my first examination of the horse: the inevitable conclusion was, that the exostosis had attained its prominency—although it might have, and probably had, *existence* before—in the short space of five days.

In the next case I shall relate it will be seen that lameness for some weeks preceded the detection of spavin.

In March, 1843, Lord T—— requested my opinion of a bay horse, for which, if found sound by me, he was to give £130. The horse was brought out of his stable and run before me, when scarcely had he proceeded half-a-dozen yards from me before it seemed to me he went lame, and particularly in the turn; though when he came to trot back again he appeared to go quite sound; nor could I afterwards, at any moment on this occasion, detect that which I fancied I had seen during his first run from me. Unsatisfied, however, with this examination, I ordered that he be left standing in his stall until the following morning, when I would see him out again. I did so, and again imagined something amounting to lameness in the near hind leg, but which, as before, became by exercise so speedily dissipated that doubt was renewed in my mind. I resolved on seeing him a third time, and a third time had the same impression made on my mind; the result of which last examination was counsel to his lordship not to purchase. It so happened, however, that the horse had, at the very strong recommendation of a friend, been sent for from Ireland especially for his lordship's purchase, with an assurance that he *was* sound; and this friend hearing of my opinion, which had caused him no little displeasure, one day, about three weeks afterwards, came to me with the horse, begging I would then look at the horse once more, and say whether I really determined him lame or sound. On this occasion, after seeing him ridden a trot, I pronounced him *sound*. "How, then, could you say he was lame three weeks ago?"—"Why, sir! a horse may be lame at one time and sound at another—be that, however, as it may, all I can say now is, that the horse, *at present*, trots sound; whereas, three weeks ago he went, in my opinion, *lame*." A month after this, the horse, which in the interval had been sold at a reduced price, on account of lameness having manifested itself, to a dealer, was brought for my opinion a third time, he having been purchased of the dealer, at the strong recommendation of his former laudator, by a Captain in my own regiment. He was now lame enough in the near hind leg, and a

large spavin obtruded itself upon my notice, which had no existence certainly at the time I made my first two examinations. After some preparatory treatment, I fired him deeply for the disease, and recommended that he have a winter's rest, the result of which was, restoration to soundness. At the time I am writing, he continues sound, after having done two seasons' hunting, and being still in the highest estimation with his present master.

A SECOND LETTER FROM MR. BAKER ON THE FORMATION OF A VETERINARY ANNUITY FUND.

My dear Sirs,

THE kindness with which you have received and alluded to my project for establishing an Annuity Fund for the members of our profession is entitled to my warmest thanks. It gratifies me extremely to find that some of the leading men amongst our professional brethren are willing to co-operate with me to secure so desirable a result. I perused with much satisfaction the letters of Messrs. Cherry and Anderson that appeared in the last Number of THE VETERINARIAN, and heartily thank them for the readiness with which they enter into my views. The long experience which the former gentleman has had of life, and his high standing with the profession, induce me to hope his arguments and opinions will have their due weight.

At the risk of being deemed importunate and wearisome, I again advert to the unanimity that must prevail among ourselves to enable us to realize the full advantages of this great and commendable object. We must put aside all personal feeling and professional politics, and meet on neutral ground, casting away all discord and opinions, to work together as members of one body, animated by the common desire of conferring benefits upon the whole. When unanimity and mutual forbearance are better cultivated amongst us, we shall find the success of our great undertaking mainly promoted by the unity of purpose with which our plans are conceived, matured, and executed. It is in every man's power to contribute his share to the sum of human happiness, for all have something to bestow. The great foundation of civil virtue is self-denial; and few, indeed, but have above the necessities of life opportunities of exercising that noble quality, and doing all that their fortune, time, and talents, will enable them to perform for the ease and convenience of other men. There are none who deserve superiority over others who do not make it their endeavour

to be beneficial to society. When we behold men good, mild, and benevolent, full of generous regard for the prosperity of others, compassionating the distresses of their suffering brethren, and relieving their wants, while engaged in the divine task of diffusing happiness around them, we naturally view them with esteem and regard. I have dwelt especially on the duties of philanthropy, because I am anxious to secure the support of the more wealthy members of our profession, who may not be direct partakers of the benefits arising from this fund, but may spare a trifle to contribute to the comfort of those less fortunate than themselves. Mr. Cherry has pointed out with great perspicuity the difference that exists between the trader and the professional man. The *mind* of the latter is his stock in trade; and, when sickness has enfeebled his body and diminished his mental energy, he can no longer keep pace with the demands of his professional career. The trader's stock is without—it is independent of himself; but the man of science cannot impart to another the sound judgment resulting from observation and experience, because it is internal: it thinks within him, and is, in fact, an integral part of himself. This forms the vicissitudes in the lives of gifted men: they spend and are spent in diffusing the light of science; and it often happens, in spite of their greatest exertions, that their splendour is dimmed by an eclipse.

All men are not qualified by nature for the stirring scenes and incessant activity attendant on the duties of professional life. Hence it is that many a man of talent has found his bodily strength wasted by excess of action; and, long before he could realize a provision for his family, has sunk beneath the burden of physical and mental decay. Can any benevolent mind contemplate the picture of the poor widow and orphans without sympathizing with their bereavements? They have lost their earthly all, and are left to seek their means of life in a world which has little to bestow, but, perchance, its reproaches, or at best its pity. Here, again, the distinction between the trader and the professional man operates to the disadvantage of the latter. The tradesman's widow may carry on the business for the benefit of her children. The stock remains, and can be kept up, and sympathy for her forlorn situation may be the very means of increasing her connexion: but the widow of the professional man has no such resource. She cannot trade with her husband's talents, and lay up a provision in the evil days that have fallen upon herself and family. I would earnestly exhort every member of our profession to give his aid to this institution. Numerically speaking, we are a great and influential body; there wants but unanimity to make us powerful. It must be considered that the income derived from this self-supporting fund is free from the character of a charitable gift. There is a sense of

degradation in subsisting upon charity that is most acutely felt in the humiliating pressure of affliction; but no sense of humiliation need attend upon receiving relief from a fund to the stock of which the recipients have been themselves contributors. It is but a just and equitable repayment that no person need be ashamed to receive, should he by age or infirmity become entitled to its relief. In a word, contributions to this fund must be considered merely as money laid up for a future day.

Before I conclude, I would express my best thanks to those gentlemen who have privately addressed to me their views on this subject, and generously promised their aid in every way to carry out this much required provident institution.

I agree with you, that the general meeting of the Chartered body which will take place in May will be a most appropriate opportunity to bring the matter forward. I trust to attend on that occasion, and to be prepared with a more detailed statement of my plan, and earnestly hope to find all present interested in securing this desirable boon to the less fortunate of our brethren.

Believe me, with kind regards,

My dear Sirs,

Very faithfully yours,

G. Baker.

P. S —I owe you much apology for forwarding you this rough outline; but really I have just now so many claims upon my time, that I cannot get the leisure to make a fair copy. Your readers will, I am sure, kindly excuse it.—G. B.

VETERINARY ANNUITY FUND.

Letter from Mr. Thomas Mather, *Edinburgh.*

Messieurs Editors,

The propositions laid down by Mr. G. Baker in the leading number of The Veterinarian of this year, suggesting the formation of a General Annuity Fund, for the benefit of decayed veterinary surgeons, their wives and families, having met with but few communications on the subject, I feel it incumbent on me to add another name favourable to its formation; and I earnestly wish that every member of our profession would put his "shoulder to the wheel" in order that Mr. Baker's philanthropic sentiments be fully responded to. It is a scheme that requires few arguments to prove its usefulness; and I have not the least hesitation in

saying that it will lead to an unanimous consent. Other corporate and professional bodies have instituted annuity funds to afford relief to them in their decayed years, as well to their widows and orphans. Why, then, does not our profession follow in the same noble march of improvement? Is it because the "Charter" has led to so much *silly and unqualified disunion?* I say, no.—It is because there is a lethargy among our veterinary members to muster a force sufficient to commence with. But when begun, no doubt the rest of our brethren (which nearly reckon one thousand) will readily follow in the ranks of this grand project, where discord and cavilling will be set aside; and let *that party faction* which has of late prevailed among us be buried, and concord and good feeling be their substitutes. It has been asked, What great benefit is to accrue from that most estimable boon, *the Veterinary Charter?* I would make the following reply:—that, beside bestowing a higher *status* on our too-much-neglected profession, and enforcing a more liberal and extended method of education for our students, it likewise affords us an opportunity of assembling ourselves together as a body "politic and corporate," and entering on a plan for such a benevolent institution as has been suggested, whereby we may be able, as professional brethren, by assisting and doing good to one another, to render succour in time of need. For, as Mr. Cherry remarks, a professional man has a great deal to contend with in the exercise of his daily avocations. Although he stems the tide with might and main, and, *pro tempore*, arrives in a safe haven, yet it but too often happens that in his declining years he gains any thing but the "lion's share," and must sit contented with a "beggar's harvest," and often leaves those nearest and dearest to him unprovided for. These few remarks will substantiate my reasons for the immediate commencement of the society; and I sincerely hope that no dissension will prevail among us in such a noble undertaking, but trust that it will be promoted with renewed vigour, as it has manifold claims from us all.

As the Annual General Meeting of the Chartered body takes place on the first Monday in May, I would suggest that a proposition be made to take up this matter, and form a committee of management, to draw out a prospectus, and enrol members, to give it a fair trial. Might it not be advisable also to solicit a few noblemen and gentlemen to aid us in the enterprise?

I remain, &c.

Edinburgh,
March 14, 1846.

VETERINARY ANNUITY FUND.

A Letter from Mr. R. H. DYER, *Jersey.*

Gentlemen,—ON perusing Mr. Anderson's letter in your last Number, I feel with him how many difficulties professional men have to encounter. That such a fund as he has advocated has never been before proposed in this country is, to me, an extraordinary affair, when we look around us and behold the recently formed Pharmaceutical Society giving to its members all the advantages which they can desire, and that too in the short space of four or five years; whilst our profession, which has been established more than fifty years, should remain almost in *statu quo*. If all the members of our body would step forward and commence the undertaking to which I have alluded, instead of pecking at each other like so many birds, I could hope the profession would, in a very short time, become what it ought to be, a respectable and honourable one.

I most cordially agree in the valuable remarks Mr. Anderson has made in his communication, and shall, for one, be happy to contribute my mite in establishing so philanthropic an undertaking as a General Annuity Fund, trusting others will, without delay, come to the same conclusion.

Remaining, Messrs. Editors,
In haste, your's, &c.

March 16th, 1846.

PERFORATION OF THE SCULL TO DRAW OFF THE WATER, FOR THE CURE OF HYDROCEPHALUS IN CATTLE.

By JOHN RELPH, *M.R.C.V.S., Sebergham.*

WITH your leave, I would occupy a small portion of your Journal with a brief account of such mechanical means as I have seen used for the cure of hydrocephalus in cattle. Much of the advantage derivable from personal attendance on disease has, in this instance, been sacrificed to negligence, in not keeping a record of the few cases that have occurred in my practice: therefore I shall only allude to the more prominent symptoms retained in the memory,

and leave to more accurate observers the improvement of the symptomatology and diagnosis.

About fifteen years ago I was called to a two-year-old long-horned heifer, belonging to a shepherd, who had recognized in her the gradual development of "sturdy." She moved unsteadily, in a circular direction. After raising a flap of skin, I made a perforation through one of the frontal bones with a gimblet, introduced a quill cut off at both ends, and at length succeeded in drawing off perhaps three ounces of fluid. The flap was then put down and secured with pitch, and advice given to the owner to push her into condition, if, fortunately, she recovered from the operation.

Ten or twelve months afterwards her sight became impaired, and she shewed other signs of a return of the disease, when she was profitably consigned to the butcher.

The next case was a calf, a few weeks old, that was unable to rise or stand. After withdrawing a fluid from the cranial cavity by a similar process, the animal regained the use of its limbs, but the amendment was only temporary: in a few days the palsy recurred, and the calf died.

The third was an older calf: the chief symptom was partial palsy. In this instance I used the trephine, took out a piece of bone, and carefully divided the membrane; but no water or cyst was found. The operation was not followed by any serious symptoms; and, some time afterwards, despairing of recovery, the animal was killed, and the water found in or upon the posterior part of the brain.

On the 22d of February 1845, assisted by my friend Mr. J. Younghusband, I undertook to operate on a two-year-old heifer that had been unwell since it was a calf. It was in low condition, fed badly, and its locomotive and visual powers were much impaired. An elastic projection of the right frontal bone was detected. We cast and secured the beast, dissected up and turned over on its attached short diameter a semi-elliptical flap of skin, and then, cutting the attenuated bone with a scalpel, turned up a like flap of it of less size in the same way. We next divided the dura mater without finding any fluid. A grooved staff was then passed, almost without resistance, to some depth in the direction of the lateral ventricle, but nothing escaped.

Almost despairing of success, a silver catheter was now pushed about 1½ inch in the same direction, when suddenly a clear liquid burst through it with much force, and that force appeared to be kept up by partially obstructing the expirations. It was not until most of the fluid (not less than eight ounces) was discharged, that suffering was betrayed: then, indeed, it was much distressed.

The flaps were replaced and secured with a plaster, and it lay exhausted some minutes.

A dose of spts. ætheri nit. was given, after which it arose and walked to its stall. A few fever doses were administered, followed by iodine and iron, and the patient went on satisfactorily during the first week.

On the 4th of March I found the heifer very much worse: the appetite and vision had failed; it stood hanging its head and pushing it against the wall; and the pulse, which exceeded the standard in number a few days after the operation, was now considerably under it.

Seeing the case altogether hopeless, the animal was killed. The head was cut up before my arrival; but I found the wound was in a healthy state, neither were there any marks of recent inflammation. The dura mater over that hemisphere displayed in various places ossific patches, and the interior of the lateral ventricle was lined, perhaps two lines deep, with a pale yellow coat, that gave out serum when cut. The interstices of the theca vertebralis were filled with fluid, and it was said that a quantity escaped when the scull was opened.

The owner with great plausibility attributed the affection to a blow on the head, received at the pail when a few weeks old. Inflammation of the dura mater had been excited, followed by ossific deposition, and, ultimately, by local debility and effusion, that had gone on for many months.

In December last I examined a yearling heifer, belonging to Mr. Ireland, of Hill-Top, that was found to present nearly the same symptoms as the last subject. It was noticed to hold up its head, and apparently feel particularly uncomfortable when exposed to the wind, and to move to the right side. No doubt existed as to the identity of the disease; moreover, it appeared to be a favourable case for treatment: and, having stated to the owner that the result of my practice was not very flattering, yet tended to shew that in many cases relief might be obtained, I suggested that a neighbouring farmer, said to be expert at this operation, should be called in to treat the case. Mr. Anthony Smith, from near Cross Fell—famous for its helm winds—an elderly Cumberland grey coat, that is, a class of men reared to agricultural industry and political independence on paternal estates, kindly met me on the 24th December. Accoutred with a hammer, a pocket knife, a leather-cutter's knife having a square point and the cutting edge blunted near the angle, a quill to use as a probe, and another with the point sloped off, and the edges indented to use as a trochar, he proceeded with the operation in the following manner:—

He dissected up a flap of skin, holding it near to the bone to

prevent hæmorrhage—is not the convenience thus purchased at the risk of the vitality of the bone by injury which the pericranium might sustain?—as described in the former case; and then proceeded to cut up the bone with the square-pointed knife, holding it obliquely and striking it with the hammer. On turning up the bone, the pia mater was displayed uninjured. He then took the quill, and, placing it against that membrane, sounded or felt the direction of the fluctuation. This ascertained, by a free plunge of the sloped quill into the brain, he adroitly punctured the cyst. The fluid flowed in a full stream, and before withdrawing the quill he turned it once or twice round to entangle the cyst on the barbs, which he soon accomplished. It was a fine delicate membrane, studded with little medullary eminences. My weak nerves certainly shook for the safety of the structure of the brain at this period of the process.

The bone and skin were now laid down, and covered with a pitch plaster, above which was placed a covering of tar, and then a cloth; and quietude, warmth, and a slop diet, strictly enjoined for three weeks. On calling at Hill-Top on the 17th February, I learned that, without any other medical treatment, the animal had uninterruptedly attained health and vigour.

On the authority of highly credible persons I have it that this is the third time Mr. S. has performed this operation for hydrocephalus in cattle in that immediate neighbourhood within a few years, and in each instance with perfect success.

In answer to the query in your January number, page 50, I would respectfully state, that the reference is to the article on Inflammatory Fever. Very probably my paper was inadvertently sent without a title. The Editor has kindly prefixed a true and very appropriate one. It was decidedly a case of black-quarter—a tolerable type of the disease as it ordinarily occurs; and was written to support the opinion that it is commonly a local gangrene. I have seen instances of it assuming a more diffuse and general form; but, still, in all it appears to me to possess a truly adynamic character.

P.S. Enclosed is a portion of the ossified pia mater, and also a specimen of the puncturing quill for your inspection.

IMMODERATE THIRST IN A HORSE.

By THOS. WRIGHT, *M.R.C.V.S., Brighton.*

THE patient was a brown horse, about fifteen hands one inch high, and had been in constant use as a saddle-horse for some length of time.

My attention was directed towards him on the 29th of Dec. last, in consequence of his having, during the previous week, been the subject of an insatiable thirst. I found him looking cheerfully, his skin feeling harsh and dry—slight universal febrile action—appetite somewhat fastidious, but still pretty good—repeated profuse ejections of urine—bowels costive—fæces passed with considerable exertion—mouth hot and dry, and thirst most excessive, it not having been quenched for more than a week.

I determined upon allowing him as much thin gruel as he would take—gave an aperient, and took away a small quantity of blood. At first the gruel could not be made sufficiently quick for him: he would plunge his mouth into each succeeding bucket, and drink with such avidity, that one would suppose he had not been offered any kind of fluid for some time previous; and it was not until the eighth and part of the ninth stable pailful of this beverage had been taken by him that he cried, "hold, enough."

Now, however, he walked contentedly away; and that he might appease his thirst as soon as it again should make its appearance, a pailful was placed in the corner of his box.

Soon after this he became evidently nauseated, from the quantity of fluid taken accelerating the action of the medicine; and in less than twelve hours from the time of its administration he began to purge, and this he continued to do tolerably briskly through the next day and night, and part of the day following. His thirst, however, had now entirely disappeared, and a few days, with the help of small quantities of tonic and diaphoretic medicine, served perfectly to establish his usual good health.

To whatever cause this disease may have owed its origin I am in no way prepared to say. Bad conditioned food is most generally ascribed as the cause of similar affections, but I am confident that was not the cause here. The most likely and plausible manner to account for the appearance of disease in this particular instance appears to me to be this, that the horse had been neglected, and had not had sufficient water given to it to admit of the various animal functions being healthfully performed: the blood, not being sufficiently diluted, became, from the superabundance of salts contained in it, stimulating in its character,

and thus excited undue action in the kidneys; which action continued unrestrained, until the treatment adopted diverted the fluids from their abnormal to a healthy course, and recovery necessarily immediately followed*.

A LIVE TOAD FOUND IN THE STOMACH OF A SOW.

Letter from Mr. CHILD, *Veterinary Surgeon, Swaffham.*

Messrs. Editors,

SHOULD you consider this narrative worthy a nook in your VETERINARIAN, you may insert it. Its truth I can vouch for. It has long been denied that any living animal can exist in the stomach of another†; but this will seem to set it on one side. A butcher, living a distance of four miles from this place, had a sow that pigged thirteen young ones on February 25th. The mother and her progeny appeared to be enjoying perfect health until Saturday the 7th instant. In the forenoon the owner attended this market. When he arrived home in the afternoon, he observed the sow to be unwell, refusing her victuals, and constantly vomiting. He remained with her until Sunday morning, at which time she died, he fancying some one must have given her poison. As such he proceeded to a post-mortem examination, and after cutting through the abdominal muscles, and taking out the stomach and intestines, he perceived a small quantity of fæces in the cavity of the abdomen; and upon opening the stomach he saw a large toad sitting upright, and perfectly alive, close to the pyloric orifice, at which situation was the rupture, no doubt wherefrom the food had made its escape, and all round it appeared as if the toad had been biting it. What could be the cause of death—the rupture in the stomach, or the stranger within?

* A case closely similar to this is to be found in Mr. Percivall's Hippopathology, vol. i, p. 22.—EDIT.

† Bots and worms excepted.—EDIT.

ON THE ANTHEMIS COTULA OR MAY-WEED.

By W. Arthur Cherry, *V.S.*

Anthemis Cotula, Cotula Fetida, *May Weed, Madern Mathern* or *Morgan*, is an acrid plant of the natural order Corymbifera, very similar in appearance to chamomile, from which it may be distinguished by its powerfully acrid and nauseous odour, by growing more erect and branching, and with rather coarser leaves—flowers white in the ray, and deep yellow in the disc: it flowers in strong lands in the greatest profusion in the month of May, in light chalky soils less abundantly throughout the summer. It is a biennial plant, and is rarely destroyed by the severest winters: in strong lands it is most abundantly to be found about the neighbourhood of old yards. In light soils, from it flowering later, it is a great enemy to reapers: its acridness causes about the hands very troublesome blisters, which degenerate into sores.

Anthemis Cotula has been employed in human medicine in hysteric fits, and the juice in scrofula. It possesses considerable action, as might be inferred, as an external irritant, which may be turned to useful purpose in some of the eruptive diseases among animals.

The first knowledge I have of its being employed for eruptive affection was by my father, on a troop horse belonging to the 2d Regiment of Life Guards, after all other remedial means had failed, in which it effected a perfect cure: since which I have rather largely employed it in country practice for similar affections, in consequence of its being easily procured, and because it is so abundant at those seasons when such diseases are most prevalent. Though the Anthemis Cotula is so cheap and common a remedy, it has proved a valuable adjunct to my pharmacopœia, and is worthy of being retained as a remedial agent.

It may be employed in the form of an ointment, or as a simple infusion: I prefer the latter, both because it is cleanly and more easily applied, as also that greasy applications do not generally suit eruptive disorders. As an ointment it may be composed of one part of the fresh plant to two or three parts of lard, which must be kept on a stove for two or three days, in order that the lard may imbibe the active principle, which can only be done while it is in a fluid form, as also to allow of the evaporation of the watery parts. Strain the ointment thus made through muslin, and apply as often as is necessary to the affected parts. It is as well to chop small or bruise the plant before it is put into the lard.

For the infusion—the rule I have adopted for defining the strength is, to use a sufficient quantity to make the infusion of the colour of rather strong tea, about a moderate sized handful of the fresh plant to a pint of boiling water: of course, the acridness of the plant will be affected by the character of the soil in which it grows, as also by the season, whether it be a wet or a dry one. The quantity that will be required of the plant in a dried form will be less both for the ointment and infusion.

The class of diseases in which I have found it most useful is that of papular eruptions which causes the hair to fall off in patches more or less in extent, and which depends upon some derangement of the alimentary organs; and though the correcting of this derangement will often entirely remove them without any topical application, yet many cases occur of an obstinate character which require very active topical remedies: it is in these cases that I have found the greatest benefit, and I have observed that the hair has been more quickly restored by the use of *infusum anthemidis cot.* than after the employment of any other remedy. I do not believe it would be of much service in mange or its kindred diseases. If it be desired to preserve the plant in a dried form, it should be collected just before it is in full bloom, when all the properties of the plant are fully developed.

LETTER OF EXPLANATION FROM MR. MOGFORD, ON THE SUBJECTS OF "HARDENING" AND "EXPANDING" THE HOOF*.

Gentlemen,—I FEEL truly gratified by the interest the remarks I addressed to you on the subject of foot-hardening, and my mode of expansion, have excited in your minds and those of others with whose communications I have since been favoured. I am confident that the principle I plead for is correct, having tested it repeatedly, and with uniform success. Nevertheless, I am aware that other influence than that I can exert in this isolated spot is necessary to place it before the profession in a manner to command the atten-

* The remarks contained in this letter have been kindly sent us at our request by Mr. Mogford, in elucidation of his paper contained in our number for December, 1845.—EDIT.

tion which, for the sake of the generous animal, as well as for the public good, I am solicitous it should obtain.

You ask for a more minute description of the case of His Excellency Major-General Napier's horse "Farmer." In consequence of the state of health of his distinguished owner, who is now passing through one of those periods of acute suffering to which the wounds he received in his country's service make him frequently liable, I regret I have not had the opportunity to ask, for what his kind treatment on other occcasions induces me to believe he would not have refused me, viz., the favour of his own testimony to the nature and extent of the difficulties I had to contend with, as well as to the completeness of the cure.

For the last two years the horse has been rather shaky on his fore-legs, frequently dropping, and sometimes decidedly lame in the near fore-leg. The foot, externally, looked well and healthy; and it did not appear to me, as far as I could judge by the manner of his going, that the affection lay in the lamina or the navicular bone. As he had splints, which, from their proximity to the ligament, might possibly have to do with the lameness, I applied a strong liquid blister, which I rubbed in under the hair, putting on linen bandages kept constantly moist with black wash. With this treatment, and a fortnight's rest, he went much better. If worked, however, the lameness would return. Subsequently, a decided contraction was evidently taking place under the coronet, and he went digging on his toes. We had him shod with leather soles, but without success. I then applied Mr. Bracy Clark's shoe, with the heels a little turned up. I tried the three-quarter nailing, with leather under the shoe, leaving the centre of the foot uncovered. Notwithstanding all the precaution we could take, the evil increased—the heels became very narrow, and the bars vertical, so as to make him very unsafe to ride. He was then put to stand in a bath. I expanded the foot rather more than a quarter of an inch. This was followed by a discharge from the frog, which circumstance was matter of no surprise to me, for I have known, with the application of warm water, a discharge ensue as abundant as would proceed from a frog seton. This, of course, tends greatly to relieve the inflammation of the foot. He was subjected to three additional expansions, and from that time to the present he has gone perfectly safe and sound.

I am happy to say he continues to give great satisfaction, and is the subject of astonishment to those who were cognizant of the state of comparative uselessness to which the disease of the foot had reduced him.

In answer to your own inquiry, and those of my other corre-

spondents, I should like to go into still more minute details, but without the opportunity of demonstration I find it almost impossible.

I have the honour to remain, Gentlemen,
Your obedient servant and sincere well-wisher.

Guernsey,
Jan. 14th, 1846.

*** We thank Mr. Mogford for this letter of explanation and detail—so far as he has, under the circumstances mentioned, been enabled to give it—and shall avail ourselves of the opportunity now afforded us of doing that which but for press of matter we should have done before, viz. making some observations on the important subject brought under notice by Mr. M.'s paper, contained in our number for December last. If there is any one argument more sweeping and convincing in its application than another to prove that horses' feet derive many or most of their diseases from shoeing, it is that based upon the notorious fact of the health they (the feet) enjoy—barring hurt arising from wearing or breaking away of their natural defences—so long as they are left unshod. Every veterinarian, every farrier and blacksmith, nay, every man conversant with horses, admits the healthfulness of the shoeless hoof, although in the same breath he never fails to tell you, that, beneficial or exempt from evil as the practice is, it is one not to be imitated by art upon such roads and paved ways as horses in our and most other civilized countries have to tread. Mr. Mogford's observations, founded as they are on the results of two years' experience, have drawn our attention to the subject, and, on reflection, suggested to our mind the practicability of horses, with hoofs of a certain character, and well hardened and seasoned for the purpose, working upon wood-paved streets without shoes. Certain it is that the natural hoof would be much less likely to slip about than any metallic defence, and that, consequently, unshod horses would be found going more fearlessly and freely than shod ones. Nor do we entertain any doubt that the hoof would be equal to all the wear and tear of wood pavement. The trial would commence the moment the horse stepped off the wood upon stone pavement or upon rough stony road, which, as the metropolitan streets and roadways stand at present, would of course continually be the case. We may, as it would seem, however, look forward to a much larger surface of roadway being covered by wood than exists at present; and then, more especially, will be the time to try horses at work without shoes*. We are here saying nothing

* Since this was written, we find the Poultry has exchanged its wood for granite pavement; we are also informed by the papers that Oxford-street and Newgate-street are to undergo the same changes.

either in favour or disfavour of wood as a substitute for stone: all that we are arguing is, the adaptation of the unshod hoof to the wood, inasmuch as the wear and tear caused by the latter would not, in most instances, prove too great for the former. And we not only argue the practicability of the plan, but we argue, from the safety increased foot-hold would give, advantage in this important respect both to horse and rider; to say nothing of the benefits accruing to the first from the absence of that which is the fruitful mother of foot evils. So far for wood. In any other observations we might feel disposed to make, we could hardly improve on what our excellent author, OSMER, said nearly a century ago. They run so much to our present purpose that we cannot resist the temptation to transcribe them:—

"When time was young," writes Osmer, of faithful observation, "when the earth was in a state of nature, and turnpike roads as yet were not, the horse needed not the assistance of this artist (the farrier), for the Divine Artist had taken care to give his feet such defence as it pleased Him; and who is weak enough to suppose His wisdom was not sufficient to the purpose in such a state? But, to prevent all supposition and cavilling on this matter, let us only appeal to our senses; and we may every day see horses, mares, and colts, running about on all sorts of ground unshod, and uninjured in their feet. In many parts of the world to this day, even on the more rocky ground, horses are accustomed to carry their riders unshod; and *in this kingdom I have known several horses rode for a considerable time unshod, on the turnpike roads about London, without any injury done to their feet. And, I believe, there are many horses that might travel their whole lifetime unshod on any road, if they were rasped round and short at the toe; because all feet exposed to hard objects become thereby more obdurate, if the sole be never pared. And some, by their particular form, depth, and strength, are enabled to resist them quite, and to support the weight without breaking.* But, because there always was a great difference in the texture of horses' feet, mankind (after certain periods of time, when the face of the earth became changed) added another defence, besides the natural one, to preserve the crusts of such feet as were weak, and not so well able to support them against new and hard objects*."—EDIT.

* Osmer's Treatise on the Diseases and Lameness of Horses, 1764.

STRAY PAPERS ON VETERINARY JURISPRUDENCE,

ADDRESSED TO VETERINARY STUDENTS.

By THOS. WALTON MAYER, *M.R.C.V.S., Newcastle, Staffordshire.*

[Continued from vol. xiv, page 539.]

Ignorantia facti excusat; ignorantia juris non excusat.

Gentlemen,

FROM circumstances to which I need not now refer, a considerable period has elapsed since last I had the pleasure of addressing you on the important subject of veterinary jurisprudence. It was then my opinion that the subject was one of extreme moment to you; but more extensive acquaintance with, and, I trust, more mature experience in, the duties of my profession have taught me that it is no less a question of extreme importance to myself and every member of our corporate body.

I confess, therefore, freely to you, that it is with great diffidence, nay, almost repugnance, that I again venture to direct your attention to this subject; because I feel how little I have to add to what you may already know, and how much what I say may be misrepresented and misapplied. The importance of the subject and the difficulties of the case are, in some measure, increased when we take into consideration the statement contained in Mr. Goodwin's letter in the February number of this Journal, and which, I trust, has not escaped your notice. No man of any feeling can peruse that letter without sensations of shame—shame, that it should be promulgated to the world that in opinions on soundness we never agree, and cannot express in words what we mean—and shame, that it should for one moment be imagined that the public can get any sort of opinion they may desire from veterinary men. A Lawyer very properly remarks in this month's Journal, "that we ought not to be discouraged by the frequent differences of opinion among the eminent professors of the art." Yet I cannot see how such differences are to be prevented so long as we cannot be brought to acknowledge any fixed principles in veterinary jurisprudence, whereby our opinions may be controlled and regulated. It is all very well to tell us that there is no difficulty with regard to law; that, legally, the question of soundness and unsoundness has been settled long ago: and so it has; but this by no means removes the difficulties or solves the problem contained in

Mr. Goodwin's letter. The law cannot decide unless the evidence is clear and good; the law cannot decide that a horse is sound when the evidence clearly proves him to be unsound. But how can a judge and jury decide according to law and the evidence brought before them, when as many veterinary surgeons, it is said, can be brought up on either side to swear just contrary to the other? Take the case of the grey gelding mentioned by Mr. Goodwin. Everybody knows that, if a horse is lame, and can be proved to have been lame at the time of sale, he is not only unsound, but is returnable to the seller: that is both law and equity. Well, the gelding five years old is examined by A. B., and pronounced unsound—lame on the off hind leg, and spavined on the off hock. Here seems a clear case enough until the gelding is examined by B. C., who neither discovers spavin nor lameness behind, but pronounces him unsound from lameness in the near fore leg. Not content with these opinions—and who would be?—the gelding was again examined, and, with the exception of a slight cold and slight thrushes, pronounced sound, with the addition of one year to the age, and the total subtraction of spavin and lameness. Now, if this case had gone into court, whose testimony must have been believed? Upon what principles can we solve the mystery? Which of the three certificates was right? The last, from Mr. Goodwin's account. Then it is clear that this reflection is cast upon A. B. and B. C., that they did not know a sound horse from a lame one, or a diseased animal from a healthy one. Does not this furnish some useful lessons of admonition? Do we not feel more and more the importance of the subject; the necessity of laying down certain principles for our guidance, of steadily and earnestly using more discretion on a subject so mixed up with the well-being of our profession, and in a more and more enlarged sense *cultivating veterinary jurisprudence?*

But let us once more return to our subject. On referring to my last paper, you will see that I endeavoured to explain what I conceived to be the *professional* meaning (irrespective of legal or horse knowledge) of the words "soundness" and "unsoundness." I remarked, that, when we stated a horse was sound, we meant that he was free from sickness and disease; that he was right in his action and in the functions of the body; that he was suitable for the purpose of the purchaser, true in his qualifications, and capable of exertion; and that unsoundness consisted in any deviation from these particulars: finally, I stated that in the examination of a horse, or in the delivery of an opinion as to his soundness, we had a threefold duty to perform; the first relating to ourselves, the second to the purchaser, and lastly to the seller: and therefore it was

requisite for us invariably to state in our decision, first, the unsoundness; secondly, whether it did or was likely to interfere with the function of the part or the duties of the animal; thirdly, if it depreciated his value; and, lastly, if it rendered him returnable. This I conceive to be the only true basis upon which you can express your opinion properly in your certificate, and which, unless it combines these essentials, is, in my opinion, a perfectly useless and unmeaning piece of paper. This will be more apparent when we take into consideration the subject in a legal point of view. The word *sound* in reference to animals, as made use of in legal phraseology, is intended to denote that the animal is to all intents what he was represented to be; that he is free from any disease that does or is likely to render him incapable of performing what is required from him perfectly.

Lord Ellenborough has thus expressed the law on the subject:—"If a horse be affected by any malady which renders him less serviceable for a permanency, I have no doubt that it is unsoundness. I have always held, and now hold, that a warranty of soundness is broken, if the animal at the time of sale had any infirmity upon him which rendered him less fit for present service. It is not necessary that the disorder should be permanent or incurable." So also in the case quoted by "A Lawyer," the decision of Baron Parke is conclusive on the point. "I think," he says, "the word sound means what it expresses, namely, that the animal is sound and free from disease at the time he is warranted to be sound. If, indeed, the disease were not of a nature to impede the natural usefulness of the animal for the purpose for which he is used, as, for instance, if a horse had a slight pimple on his skin, it would not amount to an unsoundness; but even if such a thing as a pimple were on some part of the body where it might have that effect, as, for instance, on a part which would prevent the putting a saddle or bridle on the animal, it would be different."

In determining, therefore, whether or not an animal is unsound, you have to consider, 1st, *Professionally*, if there are any deviations from health or alterations in structure, and if those alterations do or do not interfere with the usefulness of the animal; 2d, *Legally*, if the animal had these maladies or infirmities at the time of sale. You are, doubtless, aware that in horse-dealing a covenant is entered into between the purchaser and seller, and any breach of that covenant occasioned by the horse turning out not what it was represented to be, is an unsoundness. It may so happen that you may be called upon to give an opinion as to soundness some months after purchase. You will, therefore, perceive that to render your opinion of any weight, or, in fact, of any service to your employer, you must not only understand the nature of the covenant, but be able to say if that covenant has been

broken. In legal language this covenant is termed a warranty; it is a pledge between the seller and buyer that for a certain sum of money an animal has been sold "sound and free from vice." I will endeavour to give you, in as brief a manner as I can, the different legal opinions on its nature and use.

"By the civil law every person is bound to warrant the thing he sells or conveys; but the common law binds him not unless there be a warranty in deed or in law. This warranty may be either general or particular. Mere general terms of warranty are never considered as binding, unless it can be shewn that they were intended and served as an inducement to vary the contract or are effected with fraud. But a particular and express warranty goes directly to the foundation of the whole matter, and cannot be too clearly expressed nor too strictly construed." In the case of Bullon *v.* Corder, 1 B. Moore 109, cited in the work on the Laws relating to Horses, from which the greater portion of these remarks are taken, "the Court held that the words which he, the defendant, could warrant were sufficient to imply an express and special warranty." You must, however, bear in mind, that an animal having disease upon him, and purchased without any warranty, the purchaser has no remedy, unless a fraud has been practised at the time of sale. Where the age is the subject of inquiry, and the answer is given from a written paper of pedigree and not from the party's own knowledge, this has been decided not to amount to a warranty. "Dunlop *v.* Waugh, Peat N. P. C. 123, 167. Assumpsit on a promise that the horse was only eight years old, when, in fact, he was fourteen:—It appeared, that at the time of the sale the defendant shewed the plaintiff a written pedigree which he had received from the person of whom he had bought him, and said that he sold the horse according to that pedigree, knowing nothing of him further than he learnt therefrom, the mark being out of his mouth when he bought him. The pedigree was clearly proved to be false, but without any knowledge of the defendant. Lord Kenyon was clearly of opinion that this was no warranty." It has also been decided that, in an advertisement containing the description as to colour, age, &c., the work to which the horse was applied, with the term "warranted," that in that instance the warranty only extends to the soundness of the animal, and not to the other particulars. "Price will not warrant a horse. And no length of time elapsed after a sale will alter the nature of a contract originally false."

But the most important decision with regard to warranty, that is, if used and expressed in the following terms, *Received this day of* 18 , *the sum of pounds for a aged warranted sound and free from vice,* is that laid down by Lord Mansfield, in Hunt *v.* Wilkins, Doug. 20:—

"A warranty extends to all faults known and unknown to the seller; and whether of secret infirmity or latent defect, it includes every defect which is usually regarded as such by persons conversant with the practice of trade or professionally skilled in the constitutional nature and habits of the animal. But to make an exception as to general soundness, a qualification of such general warranty, the exception must not be one of a mere temporary nature and arising from some slight accident; nor is a horse so circumstanced to be deemed unsound within the meaning of such general warranty. In all cases, the purchaser attempting to defeat the contract must positively prove the horse unsound." Such is briefly the law relating to the warranty of horses, so far as is connected with the present part of our subject; and thus, legally, soundness is defined, in its enlarged sense, to be an exemption from radical constitutional defects, but in its practical sense is construed so as to exclude every defect by which the animal is rendered less fit for present use and convenience. Now, allow me to ask you, gentlemen, if it has appeared to you, in the perusal of these hastily connected sentences, that the law has interposed any difficulties in the way of arriving at an opinion on the soundness and unsoundness of horses? It is perfectly true that it has increased our responsibilities—it is perfectly clear that it depends on our opinion and our advice, whether or not the covenant has been broken between purchaser and seller, and the laws of the land shall or not be appealed to for the protection of the injured party. If an animal has been sold with a proper warranty, and by your professional and legal knowledge you can point out that he is not a sound animal—that he has some secret infirmity, some latent defect—that there are some alterations in his structure existing—surely on such a subject there ought not to be any difference of opinion, but one and all of us should unite in pronouncing that animal to be unsound. Our duty to ourselves, our duty to our employers, requires that we should thus decide. We have, however, another duty to perform—the last-mentioned at the commencement of this paper—that is, a duty to the seller. Here lies the stumbling-block of the profession. It is the endeavour to fulfil this duty, combined with certain experience, which may be termed horse knowledge, that leads, in my judgment, to that contrariety of opinion, and to that want of unanimity on the question of soundness and unsoundness, which at this moment agitates the veterinary profession. Ask any veterinary surgeon quietly, whether he considers an alteration of structure to be an unsoundness; and he will say, Yes. Take a horse to be examined by the same individual, and the probability is that he will say nothing of half a dozen defects which the animal may have, and pronounce him sound. Ask him why he does so, and

he will tell you, truly, that he knows by his experience that these defects are of no consequence, and therefore he does not consider that he should be doing his duty to the seller if he pronounced that animal unsound.

It is a well known axiom among veterinary and sporting men, that you may have a horse unsound—I speak professionally—that neither is depreciated in value nor incapable of performing the duties required from him, and therefore, legally speaking, he is not returnable. Every man of any experience knows this: he knows that there are plenty of horses warranted sound which are not so, yet are not legally unsound or returnable. To return any animal to the seller, it is not only requisite that the purchaser should shew that the animal was unsound, but he must prove a breach of the warranty, and that the unsoundness interferes with the duties of the animal.

I hold it to be my duty, and it will be yours, to point out every defect to the purchaser existing in the animal brought for examination, and equally our duty to point out those that neither depreciate his value nor render him returnable. There are, however, so many points connected with this part of the subject, that I must reserve the consideration of them for a future paper.

CASE OF HYPERTROPHY WITH DILATATION OF THE HEART, ACCOMPANIED BY DISEASE OF THE LIVER, AND DROPSY.

By A. HENDERSON, Junior, *M.R.C.V.S.*

To the Editors of "The Veterinarian."

Gentlemen,—BEING called in to attend a case that appears to me one of rare occurrence, I take the liberty of forwarding you the particulars of it, thinking you might deem them worthy of insertion in your Journal for the coming month.

On Saturday morning, February 7th, I was requested to look at a chestnut gelding, which I was given to understand had been ill for some time. His abdomen and sheath were œdematous—extremities and mouth very cold—membranes perfectly pallid, and no pulse perceptible at the jaw. While, however, endeavouring to discover some pulse, my surprise was excited by the peculiar and violent regurgitation in both jugular veins, which were distended to an enormous size. This at once led me to suppose that the heart was not performing its functions in a normal manner,

a supposition that was, on applying my ear to his side, confirmed; for I found its pulsations not only exceedingly quick, but of a palpitating character, and very irregular. During the cessations of the beats there was a peculiar rustling or rather rubbing sound, as if the blood were detained in some cavity, and could only through a small outlet force its way out*. The breathing was but slightly quickened; the superficial veins, in general, more or less distended.

The animal was removed with great difficulty from his own stable to mine, a distance of about a furlong. On his arrival he appeared very much exhausted; his respiration had become more accelerated and his jugular veins more dilated. I administered a fever draught, combined with two drachms of belladonna, bandaged his legs, and warmly clothed him; but all to no purpose.

8*th.*—Symptoms unvaried, excepting that the quickness of breathing had abated. He is still dull and heavy about the eyes. Towards the evening, as he had passed no fæces from the time I first saw him, notwithstanding several enemas had been administered, I ordered him a mild laxative in a fever draught.

9*th.*—Bowels acted; sheath and abdomen more swollen; has staled freely; the coldness of his body and extremities still continues; and the conjunctival and buccal membranes have now a yellow tinge.

He continued much in the same state until Saturday evening, the 14th, when he purged violently: notwithstanding, up to this time, after the administration of the laxative, his body was in very good order. I instantly administered astringents; but the purging did not stop until the following evening. After this attack of diarrhœa, as might have been well expected, he became gradually weaker and weaker. He ate little or nothing from the time I first saw him; but he was always very eager for water, and on no occasion attempted to lie down.

16*th.*—Heart's action the same—respiration tranquil—coldness of extremities and surface of the body still continuing—fæces in good order.

17*th.*—No alteration. Towards the evening, however, he became so weak, that he was unable to move round the box. On the following morning, between ten and eleven o'clock, he fell, and died without a struggle.

Post-mortem.—On opening the abdomen, a profusion of fluid gushed out; indeed, the cavity appeared to have been com-

* This, however, does not appear to have been the case. The sound described was owing to the reflux of the blood through the auriculo-ventricular openings, they being, in their dilated condition, but imperfectly closed by their valves.—Ed. Vet

pletely filled. The peritoneal coat of the large intestines was slightly inflamed; the mesentery was very much so, and the mesenteric glands enlarged, several of them to an enormous size. The lacteals were also unnaturally large in their caliber, and assumed a deep purple hue. In fact, all the absorbent glands throughout the system more or less took on this character.

The liver was immensely enlarged, weighing 55 lbs.; its peritoneal covering was scirrhous: on breaking through it, the substance of the liver was found soft, and of a dark purple. The left kidney was likewise much enlarged, and slightly inflamed. The remaining parts of the abdominal viscera were apparently healthy.

The heart was greatly increased in size, weighing 13 lbs., after being perfectly cleansed and freed of its contents. Its cavities were greatly dilated, their walls hypertrophic, and their lining membranes exhibited inflammation. The valves shewed their corpuscula aurantii larger than usual, those of the tricuspid more so than those of the bicuspid; but the valves themselves were not at all increased in size. Those of the aorta and pulmonary artery likewise were healthy. The pericardium was inflamed; the lungs slightly so.

STATEMENT OF THE CASES OF DISEASES AMONG DOMESTICATED ANIMALS OCCURRING AT THE EDINBURGH VETERINARY COLLEGE,

FROM THE 1ST TO THE 28TH OF FEBRUARY, INCLUSIVE.

By Professor DICK.

DISEASE.	NUMBER OF CASES.			DEATHS.		
	Horses.	Neat Cattle.	Dogs.	Horses.	Neat Cattle.	Dogs.
Abscess, in various parts ...	4	...	...	...	...	...
Caries of Facial Bones	1	...	...	...	...	...
Catarrh and Influenza	10	...	...	...	...	...
Colic	12	...	...	...	...	...
Constitutional Debility	1	...	...	...	...	...
Distemper	...	...	4	...	...	1
Dysuria	1	...	...	...	...	...
Eyes, Diseases and Injuries of	4	...	...	...	...	...
Examinations as to Soundness	15	...	..	...	...	...
Farcy and Glanders.....	1	...	...	1	..	...
Feet, Wounds and Bruises of,	23	...	...	...	...	...
Canker in	1	...	...	...	...	...
	73	0	4	1	0	1

Disease.	Number of Cases. Horses.	Neat Cattle.	Dogs.	Deaths. Horses.	Neat Cattle.	Dogs.
Disease brought forward	73	0	4	1	0	1
Feet, Corns in	5	...	...	..	...	...
Laminitis in	2	...	...	...	...	...
Navicular Disease in	5	...	...	...	...	...
Pumiced	1	...	...	...	...	...
Quittor in	2	...	...	...	...	...
Thrush in	1	...	...	...	...	...
Fistulæ and Ulcers	1	...	1	...	...	...
Fractures	1	...	1	...	...	...
Grease	8	...	...	...	...	...
Hæmaturia	1	...	...	...	...	...
Heart, disease of	1	...	...	...	..	...
Hysteritis	...	1	...	...	...	...
Indigestion	1	..	...	...	...	...
Joints, Open	2	...	...	1	...	...
Lameness in Elbow	1	...	...	..	...	...
Ditto in Fetlock	2	...	...	...	...	...
Ditto in Hip	1	...	...	...	...	...
Ditto in Knee	8	...	...	...	...	...
Ditto in Pastern	2	...	...	...	...	...
Ditto in Shoulder	4	...	...	...	...	...
Ditto in Stifle	3	...	...	...	...	...
Over Exertion	1	...	...	1	...	...
Paralysis	...	...	2	...	...	2
Pleurisy, Pneumonia, and Bronchitis	6	5	2	...	2	...
Strangles	2	...	...	...	...	...
Spavin, with Lameness	5	...	...	...	...	...
Skin, Diseases of	6	...	3	...	...	...
Sprains of Tendons, &c.	10	...	...	...	...	...
Teeth, Diseases of	7	...	...	...	...	...
Thrush in Mouth	1	...	...	...	...	...
Weed	4	...	...	...	...	...
Worms	7	...	...	...	...	...
Wounds and Bruises, excepting Feet	23	...	...	...	...	...
	197	6	13	3	2	3

General Abstract.

Cases among Horses	197	Deaths among Horses	3
„ Neat Cattle	6	„ Neat Cattle	2
„ Dogs	13	„ Dogs	3
Total number	216	Total number	8

The case of caries of the facial bones occurred in a grey horse which came from the country a distance of ten miles. Some difference of opinion existed between the veterinary surgeons who had been previously called in as to whether the case was one of

glanders. There was great enlargement along the near side of the face, extending above the orbit: on pressure, the outer shell of the bone was found considerably elevated and softened. There was a great discharge from the nose, with disagreeable fœtor; the teeth were loose, and the eyelids almost closed by the general enlargement that existed. There was fluctuation in the tumour over the maxillary sinus, which on being opened gave exit to a quantity of matter, and also shewed that, in addition to the caries, there was a fungous growth existing in the maxillary antrum. As it was evident, from the extensive progress the disease had made, that recovery was not to be expected, directions as to palliative treatment were given, should the owner of the horse desire to keep him on; but as there appeared no hope of permanent good being effected, it was recommended that he should be destroyed. Since this nothing has been seen or heard of him.

Owing to the unusual mildness of the weather this season, the number of cases of disease of the air-passages among horses has been inconsiderable when compared with that of former years at the same season; and there has not been as yet, in the nature of the cases of this kind, any thing more remarkable than occurs in the usual course of practice.

The cases of thrush in the foot which are noticed in the reports, are merely those of an aggravated character; those cases of the disease in its common or mild form, when unattended with lameness, are not stated, as, when treated at all, the means used consist of the simple application of any of the ordinary astringents. The one in the present month's report is of a nature that is not much noticed by veterinary writers, although often occurring among heavy horses in wet and cold weather. There was active inflammation of the sensitive frog, with subsequent ulceration and sloughing, and consequent separation of the external horn. The sloughing attending cases of this kind is frequently extensive, and the time required for abatement of the inflammatory action and perfect removal of the separated horn is also considerable. The treatment will vary according to the stage of the disease. In the commencement, measures are required to abate inflammation, as fomentations and poultices especially: further on, mild astringents are useful in expediting the healing process.

The case of "over exertion," which it will be seen terminated fatally, occurred in a well-bred brown pony, the property of a post and job master in town. It had been lent to a gentleman during the day (Sunday), and came in late in the evening much exhausted. The groom in attendance bled the animal, when, as it appeared sinking afterwards, the groom applied here for assistance. A cordial stimulant was given, but the poor creature, com-

pletely exhausted, died during the time it was administering. The body was obtained for dissection: considerable congestion of the lungs was observed, and an apparent deficiency of blood in other parts of the body, but there was no evidence of disease in any part of the system at large. This case shews the impropriety of bleeding under such circumstances, instead of giving such a stimulant as might enable the system to rally, so as to admit of antiphlogistics being subsequently employed advantageously.

But few cases of epizootic pleuro-pneumonia among cattle are reported this month; not so much because the disease has mitigated, but in consequence of many occurring at a distance from the College, inconvenient for the students to see them. Great numbers of these cases occur in animals which are insured; and applications by the Insurance Society are constantly made here, in order to ascertain whether it will be more judicious to attempt medical treatment, or destroy the animal affected.

Among the cases of "wounds and bruises of the feet," there is one worthy of notice in a practical point of view. It occurred in an old cart-horse with a very strong hoof: he had been lame for some days, and his foot had been several times examined; but the cause of lameness was not discovered satisfactorily, and, as he was gradually becoming worse, he was brought here. The foot was again examined, the hoof being well thinned in the sole, and it was found that the sensitive parts had been pricked with a nail. A great quantity of matter escaped when the seat of injury was laid open; it was also discovered that the whole of the horny sole, and part of the crust on the outside quarter of the foot, was detached and under-run from the heel forward to the point of the frog. The whole of the detached horn from the crust and sole was removed; the foot was placed in a poultice, which was changed night and morning, which considerably relieved the inflammation, and checked it from extending to the coronet; but, as there was still a discharge of pus from the point where the injury was inflicted, and as it was certain that this discharge depended upon some irritant, more of the crust was removed, when a portion of exfoliated bone was found, which was taken away. After its removal the parts affected rapidly took on the healing process. This, which is not an uncommon case, is mentioned for two reasons; first, to shew that in very strong hoofs it is of importance to thin the horn, so that it may bend, or that such an impression be made by the pincers in examining the foot as the animal may feel, otherwise the cause of lameness may be overlooked until considerable mischief has been done in the foot, and the horse thrown for a long time idle, instead of the disease being quickly checked

and relief at once afforded: and, in the second place, to shew the advantage of freely opening up the seat of injury when discovered, because in this case, notwithstanding the extent of suppuration, and the exfoliation of a portion of the os pedis, an inch in length, half an inch broad by a quarter of an inch thick, the disease was checked without breaking out at the coronet, and the whole of the surface thus exposed is now covering with horn, and the horse at work.

In your last number, I find a letter from Mr. Wells, in which he states that he did not make any demand upon me in his former letter,—that he only regretted I did not comply with Mr. Fisher's request. His re-perusal however of Mr. Fisher's letters, and, if he chooses, the perusal of Mr. Litt's letter in the last number of *The Veterinary Record*, will, I think, be sufficient to satisfy him that the nature of those communications precludes me from bestowing on their authors any other answer than the one I have already given. Mr. Wells goes on, in his last, to charge me with inconsistency, in not giving the treatment of all the cases commented on, or no treatment at all, and thus makes himself party with Messrs. Fisher and Litt. He is as anxious as they are to draw me out; but he should recollect that while he and they are anxious to have an easy road to knowledge, some of his and their brethren of the same school are by no means so fond of such professional communications being made to the public. How long is it since grievous complaints were made against Professor Sewell, for publishing what he considered the best treatment for the murrain in cattle?—or how long is it since an attempt was made to prevent the public getting any advantage by the publication of the scientific dissertations, discussions, and "Transactions of the Veterinary Medical Association" of the London veterinary school, formerly published in the pages of your Journal, by the withdrawal of their reports for the purpose of publishing them for private circulation? to which association I presume Messrs. Wells, Fisher, and Litt, belong, or, if not to the Association, at least to the School. I therefore think that, before he charges me with inconsistency, he should look at home, and see whether he has done as he would wish to be done by.

Extracts from Domestic and Foreign Journals, Veterinary, Medical, and Agricultural.

An Essay on the sanguineous apoplectic Congestion in Sheep, known under the Names of "Blood," "Blood in the Spleen," &c.

By M. P. Charlier, *V.S., Rheims.*

[Continued from page 179.]

Individual predisposing Causes.—Where all other things are equal, this disease, when it breaks out among a flock, chiefly attacks young lambs, and lambs of one and two years old, or such as are in better condition than the rest of the flock, and sheep from three to four years old; and, above all, it selects the finest animals, those which feed and thrive well, and which are known to observers under the characteristic denomination of sheep that have the *blood*, or *too much blood*.

Ewes in an advanced stage of gestation often fall victims to it in them the sanguineous congestion almost always declares itself in the womb, produces miscarriage or a very painful and unnatural labour. If submitted to the same regimen as the ewes which are suckling, when they do not die within a day or two after the miscarriage, they get remarkably fat, and then die in about three weeks or a month. Ewes which have not borne lambs, when submitted to similar conditions, are in the same state.

Sheep weakened by previous scanty feeding are less exposed to this disease; in them the congestion only declares itself, if we may make use of the phrase, by accident; that is to say, when they are suddenly changed from a scanty supply of food to an abundance of green or dry fodder abounding in nutrition, and very rich. The disease in general appears accompanied with external hemorrhage, and effects its ravages with frightful rapidity.

Sheep well kept, and according to a certain regimen, such as are being fattened, for instance, having gradually and for some considerable time become habituated to heating fodder, are more rarely attacked by blood than others.

Lastly, ewes that are suckling, and white lambs, unless too highly fed, and on too exciting fodder, rarely fall victims to it.

Let us now approach a question most interesting not only to veterinary practice but also to public health: we will speak of contagion. This disease, blood in the sheep, is it contagious?

Can it be transmitted from one animal to another by means of mediate or immediate contact? Is it capable of producing a putrid disease of a virulent nature in the human being?

These points, which are to the present day obscure, would have been long since set at rest if all observers of this disease had, like M. Delafond, attentively examined and severely analysed all the facts and cases that came under their notice. Let us recall to mind, in the first place, and never be weary of repeating, that the disease which we are now describing, and which forms the subject of this essay, whatever may be the symptoms by which it is characterised, differs essentially from typhoid diseases: the account of its causes, symptoms, and anatomical characteristics, will have more than sufficiently proved this.

With enlightened and attentive observers, the truth of facts will always prevail over theoretic and preconceived ideas; for Hurtrel d'Arboval, who described congestion attended with external hæmorrhage as a variety of typhus in sheep, nevertheless affirms that this variety is by no means contagious. And on this latter point we perfectly agree with him.

Seeing the disease suddenly break out among his flock, and carry off numerous victims in one single day, the farmer is but too apt to attribute this frightful mortality to contagion. But if the disease can take on an epizootic form, it is not on that account contagious. Have not all the animals thus simultaneously attacked in one fold or one flock been for a considerable time exposed to the same influences, and have not all imbibed from a similar source the germ of the evil that declares itself among them? Let one individual that has been kept out of reach of the causes of this disease be placed in the very midst of this pretended seat of contagion; if he does not escape, you may then conclude that there is direct or indirect contagion. But we caused some sheep taken from a neighbouring locality to be placed among a flock in which this disease was committing frightful ravages (that of M. Tartarin, a farmer, at Sergis), and they were not in the slightest degree affected. To this proof we will add others. In one and the same farm, the disease in general only attacks the most plethoric animals, while it always spares the more feeble; and in a locality where there are many flocks the disease will often break out in but one, and that one by no means an isolated one. Close by M. Tartarin's flock, some sheep belonging to his brother were driven every day to pasture. We have seen dogs and other animals feed with impunity on the yet reeking remains of sheep that have died of this epizootic. Lastly, we have inoculated healthy animals with the blood of diseased animals without producing the slightest result.

M. de Gasparin, who describes this affection under the name of gangrenous gastro-enteritis, thus expresses himself in his "*Traité des Maladies contagieuses des Bétes à Lain*" (p. 79). "This terrible disease is not contagious: I have ever seen dead animals opened, given to dogs, and even eaten, without having ever heard of the slightest accident having happened in a disease so frequent, and which is almost the only one that is dreaded for the flocks of our country, where it produces very considerable ravages in the districts which are subject to it." Further on the same author adds: "We have already stated that gastro-enteritis, unattended with eruption, is not contagious. Thousands of facts do not permit me to retain the shadow of a doubt as to this point, which is besides admitted by our shepherds, who are but too apt to attribute all the diseases to which their flocks are subject to contagion."

Is the neighbourhood, or contact with sheep attacked with this disease, injurious to the man who has the care of them? Is there danger in eating the flesh of those that are killed, in touching the carcasses of those which have died, in skinning them, in selling the skins? Is a man liable from any or all of these things to contract carbuncles or malignant pustules? To these questions we again reply by facts, the best, the only valuable arguments in all points of science requiring observation.

The flesh of animals that have been destroyed even at the last stage of the disease, is, with the exception of the diseased parts, fine, firm, and compact, keeps well (a remark made by Hurtrel d'Arboval himself in his description of the so called typhus fever), and has been eaten in most farms without producing any ill effects. We have repeatedly pricked ourselves while bleeding diseased animals, and have opened and examined them after death with wounds on our hands, without any harm whatever resulting. Of the numerous carcasses that we have opened, some were only just dead, others had been dead some time, and others had been disinterred after having been buried ten or fifteen days. In drawing out the lungs, the blood has frequently spurted out over our face, lips, and eyes. We have seen persons place the reeking knife with which they were skinning sheep that had died of the blood between their teeth, and hold it there. Two men belonging to M. Tartarin, notwithstanding our prohibition, skinned more than thirty sheep with impunity that had been buried some time, and were already beginning to putrefy. Would a virulent and contagious disease have acted with such benignity under all the several circumstances at which we have glanced? Would not the greater part of the shepherds who bled the diseased sheep, who skinned several carcasses every day, who were in constant

contact with animals attacked by the blood,—would they not have been attacked with typhus, if these animals had been submitted to the action of a charbonnous virus? Let us be told of one victim, only one; we shall view him with suspicion whoever he be: not but that in the course of our practice we have met with a case that made a great deal of noise in the country at the time, and that has been cited in contradiction of the opinion we are here defending. We will relate this case, and examine into its validity.

In the summer of 1840, after having passed several days and nights in watching over his flock, M. Tartarin's shepherd fell ill. A tumefaction made its appearance on the face. A country surgeon, M. Cerveau, being called in to him, thought, as we are informed, that he recognised a malignant pustule; and all the treatment he prescribed was emollient embrocations and drinks composed of violets, gum, and barley water. Two days passed away. The surgeon was again sent for, and, being less timid now than on his first visit, he operated on the face with knife and cautery. The tumefaction increased, and extended itself to the neck. A few days afterwards the patient died. From that time all the blame was thrown upon the ignorance and carelessness of the veterinary surgeon (we wish that no one had deserved it more than he did). The shepherd was said to have been attacked with malignant pustular disease because his flock had the typhus. An alarm was spread throughout the whole country; the mayor and the *sous-préfet* were informed of the occurrence; they were on the point of sending to Paris to request that some commissioners might be delegated from the Veterinary School to study this fearful charbonnous disease. Book in hand, M. Cerveau, guided by what had been told him respecting the symptoms presented by our diseased sheep, endeavoured, after having victoriously proved it to M. Tartarin, to convince us that they were labouring under putrid fever.

Although we are willing to believe that the opinion of M. Cerveau would on a point of human medicine have some weight in the eyes of his colleagues, yet, notwithstanding the close affinity that exists between the two branches of medical science, he must have the goodness to permit us to dispute his competence and his authority on a point of veterinary medicine, and especially on the one in question.

The disease that had attacked the flock belonging to M. Tartarin, of Sergis, was that disease of the blood which we have seen elsewhere, and the history of which we are now giving. There we examined the carcasses; and we there, we ourselves, saw and attentively observed our patients. Besides, two experienced veterinary

surgeons, M. Hugues my predecessor, and M. Dubuisson, V. S. at Chateau Thierry, came to give me their assistance and confirm my diagnostic. And it was in face of these proofs and these testimonies that M. Cerveau maintained that we had failed to recognise a putrid or typhous fever!!

We submit the case to human and veterinary surgeons, and all men of sense; let them judge between us. As for the shepherd, let us suppose for an instant that he died of malignant pustules. Is it to say that it was created in him by the disease which decimated the flock? Not only is there nothing to authorise us to admit this, but on the contrary; for there, at M. Tartarin's, other individuals already referred to had exposed themselves equally as much as this shepherd to the influences of the disease. Besides, at least a hundred shepherds have bled and looked after animals attacked with the same evil, have skinned the carcasses both before and after the blood has become coagulated, and not one of them, that I ever heard, has suffered the slightest inconvenience.

M. de Gasparin, after having demonstrated the non-contagion of the disease of the blood which he calls internal typhus, and inquired of himself "if there exists in the blood, in the skin, in the flesh, of the animal any deleterious principle which is capable of infecting men or animals that touch it, flay it, or come otherwise in contact with it," replies in these terms: "A pretty considerable number of cases of this nature are related of the other varieties of typhus, but none appertaining to internal typhus, to gastro-enteritis without eruption. Shepherds, knackers, and slaughter-men, daily skin and cut up sheep and horses that have died of this disease: the carcasses are constantly given to the dogs. Our veterinary surgeons plunge their hands and arms into the bodies of the dead animals while opening and examining them, and no evil consequence ever ensues."

The talented Professor of Alfort, in his "*Traite de la Maladie de Sang de la Beauce*," says: "I have not seen one single case of contagion during my sojourn at Beauce. The veterinarians whom I have interrogated on this important point have all replied to me in the negative; and the shepherds take no precautions when skinning the carcasses."

After this slight digression, which we have deemed requisite in order to support our opinion by two such high authorities on this point, we will return to M. Tartarin's shepherd.

This case, the validity of which we dispute, if it had been well established and published with all the guarantees of close and attentive observation, still would not have authorised us to believe in the contagion, and could not have prevailed over the thousand contrary and negative facts so well known. Might not some in-

sect have transported the typhoid virus from a distance, and inoculated the man by its sting? Is it not also well known that typhus may be spontaneously developed in men who live poorly, and are exhausted by labour under a burning sun? Have not shepherds been before attacked with typhus when there was not a single case of this disease among their flocks? We can even admit in this hypothesis of the existence of malignant pustules in the shepherd, that among the sheep that died one might have been found foundered or fatigued, or even typhus, for it is by no means impossible that a case of typhus should declare itself in a flock ravaged by the disease of the blood. But here we are making an altogether gratuitous concession. The existence of malignant pustules in M. Cerveau's patient is by no means proved. It is true that we have the assertion of that gentleman; but no authority, be it what it may, can have any weight against carefully collected and publicly attested facts. A single authority is valueless in the eyes of science. And has M. Cerveau any right to require of us that we shall take his word, while he at the same time impugns the authority of several veterinary surgeons? Far from it: we can almost invoke a testimony contradictory of his. Dr. Daubanel, a conscientious and observing practitioner, who saw the patient, on being consulted by us on the subject, replies that he very much doubted whether there was any malignant pustules. And had not M. Cerveau himself some doubts? We would fain believe so in order to justify the uncertainty of his conduct, and the contradictory nature of his therapeutic measures; for we do not consider leeches, which we forgot to mention, mucilaginous drinks, and emollient embrocations, as being the best or most prompt means of arresting the progress of malignant pustules.

But why waste so many words on a fact of no weight, one that will not bear examination, and is not of a nature to become established, any more than the assertion of Dr. Herpin, that the disease of the blood in sheep is capable of producing malignant pustules?

Treatment.

If another proof be requisite to demonstrate that the actual character of apoplectic congestion in sheep, and principally that accompanied by external hæmorrhage, has been and still is mistaken, we shall most certainly find it in endless variations that have been made in the therapeutic treatment, some of which have been, by turns, extolled and abandoned, according as their uselessness was perceived, or the dangers which they gave rise to. Thus, the disease of the blood having been supposed to arise from putrid emanations,

quinquina and acetate of ammonia were prescribed for it: others caused marine salts, the proto-sulphate of iron, fumigation of chlorine gas, &c., to be administered. Lastly; Daubanton, Tessier, D'Arboval, and M. Delafond, prescribed bleeding and a debilitating regimen as preservatives, without troubling themselves about applying this mode of treatment to both forms of the disease.

We entirely coincide with the opinion of these talented individuals respecting the prophylactic means to be made use of in order to prevent sanguineous congestion in sheep, and its fearful results. In fact, large blood-lettings diminish the sanguineous mass and the size of the globules, increase the aqueous portion of the vital juices, render the blood more fluid, less plastic, and favour its circulatory action through the vessels. As may easily be perceived, general bleedings are here rational, and indicated not only as a precautionary measure, but also as a means of cure.

Nevertheless, it has been said, and repeated again and again, that all beasts attacked with disease of the blood are struck with death, as if the impotency of art to oppose the frightful ravages of this evil had discouraged all observers.

If they will not recognise the existence of the disease excepting when partial or general hæmorrhage has supervened, then it is true that, in the majority of cases, all treatment is powerless; but in order to arrive at its fatal termination, the disease, although progressing with frightful rapidity, does not pounce upon its victims without some precursory symptoms, as has been judiciously observed by M. Delafond; and, in order to render it incurable, it must, with the exception of some isolated case, have passed through all its phases: that is to say, the *plethoric state*, the *state of congestion*, and the *congestion at the hæmorrhagical stage*. Now, by bleeding largely during the plethoric state, the evil may, as every one knows, be abated; and even during the period of congestion a copious bleeding from the jugular will often save the life of the animal.

I have often seen sheep—panting, supporting themselves with difficulty on their stiff and trembling limbs, the head extended, the mouth open, the eyes red and tearful, the flanks beating violently, the dung crimsoned with blood—restored to life by a copious blood-letting from the jugular. Clever, careful, and intelligent shepherds, know a great deal in these cases. Curative measures are not, therefore, always inefficacious during the period of congestion. But if, by the abstraction of blood, we can succeed in rescuing some few victims from this devastating scourge, it is only when the bleeding is performed at proper time, for any delay renders all the endeavours of art impotent before the fury of the evil. In this case, in order not to lose all, the animal should be killed without loss

of time; for if a vein be opened when hæmorrhage has commenced in one or two parts of the body, the animals will often fall and die during the bleeding, or very shortly afterwards. This fact is peculiarly striking in a flock where the disease has existed for some time, where it has already carried off many victims, and a great number of animals have been bled: and this explains why it is that the mortality has always increased during or shortly after the bleeding, when this preservative means has been put in execution too late.

I am here compelled to observe, that many farmers have no confidence in our acquaintance with the diseases of sheep, and too often abandon the care of their flocks to ignorant and sometimes superstitious shepherds, who can with difficulty be brought to listen to reasonings and advice founded on experience and practice.

As far as is possible I always bleed from the jugular; and when the disease declares itself violently in a flock, my first care is to separate all the weak animals from the strong, in order only to occupy myself with the latter, all of which I cause to be bled; beginning, however, with the most vigorous, those of the most sanguineous constitution, and, above all, those which have already presented some symptoms of the disease.

In order to practise this operation with more celerity, I take all the most intelligent persons about the farm as assistants. Some cut the wool, tie the four legs, and mark the sheep on the head; others tie a bandage round the base of the neck in order to cause the vein to swell up, and bleed with a lancet or penknife; and, lastly, others put in the pins and make the ligature. By these means I have seen a thousand sheep bled in one day.

At the commencement of my practice few shepherds knew how to bleed from the jugular; I may even say that none practised this bold method; therefore it required great perseverance to enable me to vanquish their obstinacy and idleness. Now, success has made me listened to. A great number of shepherds, and many farmers, know how to practise this operation. Besides, by tying the four legs of the sheep, laying it on the ground or on a table, and holding the neck back, this salutary bleeding can be conveniently practised.

When the disease appears with less intensity, and only attacks some beasts at intervals of several days, I have contented myself with bleeding from the sub-cutaneous facial vein, which rises on the forehead, and principally results from the re-union of the superior labial vein with the angular *. This vein, the situation

* A bleeding from this may be performed by an almost unpractised hand, and there is no necessity for cutting the wool.

of which has been accurately pointed out by Daubanton, is known under the improper name of the *angular* vein; it passes at about an inch below this one, and at two fingers' breadth from the commissure of the lips in front of a tolerably projecting bony tubercle, which may easily be felt near the root of the fourth molar tooth by feeling the jaw with the fore finger.

I have been able, by compressing this vein on the external surface of the inferior jaw, to obtain more than a pound of blood. It is almost always necessary to put a pin in in order to stop the blood. In less pressing cases one may bleed from the saphena or brachial vein, &c.; but the jugular and the sub-cutaneous facial veins are to be preferred to all others.

The quantity of blood to be taken from large animals as a means of cure is from 500 to 600 grains, or half a pint and more—and as a preservative, from 250 to 500 grains, or from a quarter to half a pint—for white lambs, from 150 to 200 grains, or about a quarter of a pint, varying according to the age, condition, and strength of the animals and their plethoric state: the bleeding may be repeated should it be deemed necessary.

All other circumstances being the same, lambs, young rams, sheep of two or three years old, which are generally well fed; ewes that have not borne lambs, or that have miscarried, should be bled more copiously than ewes that are suckling, those which have slunk but a short time before, and sheep that are being fattened.

By bleeding ewes that are very large, miscarriage is often averted, which, as I have before said, often takes place when the sanguineous congestion has declared itself in a flock.

Having thus demonstrated the good effects of bleeding as a preservative and curative means in sanguineous congestion in sheep, we must say, with M. Delafond, that this is not the only treatment which must be had recourse to, that a strict dietetic regimen should be instituted to second these abstractions of blood.

When disease of the blood has declared itself in a flock, and several beasts die off every day, the animals, after having been bled, ought to be rigorously dieted for at least three or four days, kept on half allowance for a fortnight, and then only gradually allowed to return to their full feed.

Should it occur during the winter, for the first few days they ought to have nothing but well-thrashed straw, refreshing roots, and some cooked grain, as barley or rye, and barley mixed; for drink, water whitened with barley-meal, or pure water acidulated with vinegar or sulphuric acid, or in which Glauber's salts have been dissolved in the proportions of 500 grains to 100 pints of water. These drinks quench the ardent thirst of the animals, render the

blood more aqueous, cause the urine to flow more freely, and favour cutaneous transpiration.

During the summer the sheep should be kept in the fold and only given at first a scanty ration of straw, and afterwards a little fodder. They may be allowed to graze for about an hour in the morning before the dew has evaporated, and towards evening after the heat of the day has passed, on the tender watery herbage which grows on damp meadows, the after-math of permanent or temporary meadows, &c. An abundance of the above-mentioned drinks should be given, unless there is some running water within reach of the flock.

Whatever be the season, the doors and windows should be opened to allow free access to fresh air, the folds well fenced, the animals well littered, and, when the weather is favourable, they should be driven out for a short distance, but not in the heat of the day, or far enough to fatigue them.

I shall merely mention a local mode of treatment which I have in general found to succeed with oxen attacked with sanguineous congestion attended by sub-cutaneous hæmorrhage, but which has almost invariably failed with sheep suffering from this disease. This mode, employed in conjunction with bleeding, consists, 1st, in making a tolerably large incision in the sloping part of the tumours formed by effusion of blood; 2d, in taking off the clots of blood and squeezing out the serosity infiltrated in the cellular tissue; 3d, in well washing the wound with salt water, cleaning it out afterwards with chloride of lime if it becomes offensive, and dressing it when necessary with a more or less active digestive.

These lumps or sanguineous depositions have, in the horse and ox, often been wrongly taken for carbunculous tumours. Here, as in the sheep, they develope themselves on plethoric animals, and animals of a strong constitution; on those which are abundantly fed, and resemble in their anatomical characteristics those agglomerated collections of blood which are determined by violent contusions. These tumours are often re-absorbed by abundant and reiterated bleedings. (Observations already made by MM. Leblanc and Professor Gellé.)

Precautions to be taken to prevent the Disease.—A farmer who values his flock should, in order to avoid the terrible ravages committed by sanguineous congestion in the sheep in all our most extensive agricultural and grazing establishments,

1. Diet the animals regularly and carefully throughout every season.

2. During winter add refreshing roots to heating fodder and grain.

3. Never pass suddenly from dry to green, or from green to dry feeding, but let the change be gradual.

4. Take into account the nutritive qualities of the food, qualities which are more or less marked according to their nature, and the state of the weather during the vegetation of the crop.

5. Drive the flock out as early in the day as possible, in order that they may not be shut up in the fold too long.

6. During fine weather at the end of March, and during the months of April, May, and June, let them eat the grass which grows in meadows, lanes, avenues, at the skirts of woods, and on the fallows. These plants contain a considerable quantity of the water of vegetation, and are admirably suited for the animals whenever they are submitted to a succulent diet, whether green or dry; they diminish the too great proportion of organic principles in the blood, and augment the aqueous part.

7. Shear as early as possible, in order to allow the wool time to grow again before the very hot weather comes on; for if a long fleece weighs down the sheep and prevents the air from refreshing him, too short a fleece does not sufficiently shield him from the fatal effects produced by the rays of a burning sun, and from the sting of insects which torment and fatigue such animals.

8. Never suffer the pastures to be lavishly consumed, or pasture the sheep on fields before they have been gleaned, unless it has rained and the grain has begun to ferment.

9. During very hot weather, when the fodder plants approach maturity and are very heating, especially in dry seasons, the sheep should be pastured morning and evening on tender grass containing a great proportion of the water of vegetation. Vetches mixed with oats, and eaten until the formation of the seed, are then very proper. The sheep should be got into the fold by nine or ten o'clock in the morning, and not turned out again until four in the afternoon; or they should be sheltered from the sun in shady places, folded, and if it is thought proper littered, in order not to lose the manure. In the middle of the day, sheep exposed and isolated will gather themselves into a corner of the fold and dung the ground unevenly; breathing a hot air loaded with electricity, and with the impure gas which escapes from their excrements, and seriously injure themselves.

10. In all weathers take care that the sheep have pure water to drink. During the great heats of July and August, it will be well, as has been recommended by M. Delafond, to render the water in the troughs temperate and refreshing, by adding eight ounces of sulphuric acid, or four pounds of good vinegar, to every twenty-five gallons of water, for then the sheep are heated by the dryness of the air, by the grain they have gleaned, by the

succulent herbage, &c. This drink, which is sufficient for about one hundred and thirty sheep, is not expensive, and can be easily prepared any where.

11. During the stormy summer nights, and the cool autumnal nights, cause the sheep to be kept in the fold.

12. Lastly, all sheep owners and shepherds should make a point of examining the skin of the natural openings, and of the eyes of the animals, to assure themselves that they have not too much blood; and should practise bleeding from the jugular and the subcutaneous facial veins, in order to be able to perform this operation at once in cases of necessity. This may easily be done when a sheep is killed.

Among the plants which sheep find in fields, M. Gasparin has mentioned those of an intoxicating and narcotic nature, as being calculated to produce the disease of the blood. M. Delafond considers this opinion to be too exclusive, and plainly demonstrates that the gleaning of cereales and leguminous crops is much more to be feared than those plants. For our own part, observation as well as facts have proved to us, that the plants grazed on by sheep after the harvest can contribute but little to the development of this affection, and are only to be feared in so far as they may predispose sheep to a dropsical cachexia, when they are luxuriant and the weather is wet. And what tends to support my assertion is, that it is particularly in wet rainy years, when these plants are luxuriant, that the disease is most rarely seen, while it breaks out with violence and carries off most victims when the grass is fine and the summer has been dry.

It frequently happens that in arable land, where there are few if any parasitical plants, the disease of the blood will manifest itself with frightful and murderous intensity among sheep turned in before the gleaning, and is particularly fatal in such as have eaten the ears of corn.

The reason why young and vigorous animals are always the first victims is, that, being constantly at the head of the flock, they find more ears and husks, eat more, and make more blood, and quicker, than the other animals.

[To be continued.]

PLEURO-PNEUMONIA; OR, EPIDEMIC AMONG CATTLE.

[*From the Mark Lane Express, March* 1846.]

HAVING had a six months' visit of this fatal disease among my cattle, and consequently got a little experienced in its first symptoms, progress, and results, I think it my duty to my brother farmers and the country generally, to add my mite to what has already been published regarding this most fatal epidemic.

Having had some young stock grazing at a distance of three or four miles from my farm last summer, I was informed by the park-keeper, about the beginning of August, that one of my cattle was not feeding so well as usual; and on examining it, I found its coat staring a little, and that it had a slight low cough; and as the weather had been very wet for some time, thought it had got a bad cold, and that it would be advisable to take it home, where I might have it better attended to; consequently, it was sent for, and put in a dry shed by itself, and I am not aware that any of the other cattle about the place ever saw it or was near it. I then had it bled and physicked; and as it was eating a little grass, thought it would soon get better. On the next day, as the fever was very strong and the physic had operated, I took some more blood, and had still good hopes of its recovery. However, by the third day it had again got very costive, the excrement being very black and fœtid, and the pulse beating 112. I began to lose hope of it, but gave another dose of physic (Epsom salts and ginger), which again operated, but without producing any abatement of fever. As I could not think of taking any more blood, and as it had not eaten any thing for two days, I fed it with oatmeal gruel until the sixth day, when it died. On opening it, I found the lungs about twice the usual size, the left being much the largest, and both gorged with blood as black as pitch, and quite in a state of corruption: the pleura also very much inflamed, and adhering to the lining at the sides in a great many places, and the chest filled with water; the heart, liver, and bowels all appeared entire; and, being satisfied that it was some incurable disease, had the skin taken off, and the carcass buried; and as it was but a year-old stirk, I gave myself little more concern about it; but having heard that two cattle died in the adjoining field where it was, I kept a strict watch over the rest, but never saw any thing the matter with them.

Well, in four weeks after, I noticed one of my cows a little dry and staring in the coat, and not feeding as usual; and on observing her stools, state of her pulse, and her general appearance, soon perceived she was in for the same disease; and as she was in fair

condition, and being convinced of the incurable nature of the disease, had her sold to a flesher without delay; and eight days after, her neighbour in the stall exhibiting symptoms of the same malady, gave ample proof that I had got not only a fatal but a most contagious disease. and that disease is pleuro-pneunomia.

On consulting the "Treatise on Cattle," by the Society for the Diffusion of Useful Knowledge, I found it strongly recommended as a good preventive in cases of diseases of a contagious nature. to bleed and physic the sound animals, which I immediately did; but, notwithstanding, I have lost ten, seven of which have been buried, not having been in condition to kill. Now, Sir, to give all the information in my power regarding a remedy for the disease, I have to state that, in five out of the ten cases I did every thing that was suggested to me from books on the subject, and from practical veterinarians; and am sorry to say that in all of them I was unsuccessful, and am of opinion that, after the disease is fairly established, it is incurable. I bled, blistered, physicked, setoned, and rowelled; and, although for a short time they all had their effects, these have hitherto all failed to effect a cure, and the disease has, from four to eight days after its apparent commencement, ended in death. But, notwithstanding that my feeble endeavours have failed, there is no reason for despairing of a remedy: some one may be more fortunate than I have been; and I hope whoever succeeds will make it known. If my experience can be turned to any account in the way of prevention, I may mention that the very first symptom of the disease is looseness—that, while all the beasts are on the same keep, one will be observed uncommonly loose, which will continue for two or three days, and be very black; then he will get bound very rapidly, and his hair will begin to become very dry and erect; the animal will cease licking himself, preferring to lie down; and, if in the fields, separate himself from the rest of the herd whilst grazing, but eating very little himself. In winter time, although supplied with turnips, he prefers feeding off a little straw, and will continue to chew the cud after he has entirely left off eating: his belly, which has hitherto been nearly as full and healthy looking as usual, will now begin to collapse; his head will be somewhat extended, but his eyes, beyond assuming a more than usual brightness, have nothing very remarkable about them. About a week after the looseness has appeared, he will be troubled with a low and not very frequent cough, which, though almost inaudible, will irritate his chest, causing it to rise as if with pain, and, if you observe that cough more than once, in all probability your chest will rise in a like manner; you will next observe a grunt in his breathing, especially when lying, a catch in every expiration, which will soon become constant even while

standing, and all the medicines I could administer had no effect in removing it; and the longer it continued the louder it grew, until death put a period to it. If you press your hand to the right side, behind the fore-leg, you will feel the heart beating very strongly, between 100 and 130 a minute.

Now, although I have never effected a cure where the disease was fairly begun, yet I think, by employing preventives, they have been the means of saving one or two. In going over all my stock with medicines, I observed two rather loose, but gave them the same treatment as the rest; but, while it had very little apparent effect on the greatest portion of them, farther than diminishing their appetites for half a day, these two became very ill in a few hours, and one of them was so very weak, that it was unable to stand up or to eat any thing for a week, and was fed solely on linseed-tea and gruel, put over his throat, when he got stronger and ate, for six weeks, about as much as two would require, when he relapsed, took the disease, and died. The other was not so ill; he always kept eating a little, but got very much tucked up; but, as I nursed him with three bottles of linseed-tea a day, with sliced turnips and hay, he quite recovered, and is still doing well.

Now, it may perhaps be of importance to any person who may be visited by this unwelcome stranger, to know what medicines to give for prevention; and I may mention that, after taking half-a-gallon of blood from cattle more than a year old, I gave, on the morning after on an empty stomach, 1 lb. Epsom salts, 1 oz. ginger, 1 oz. nitre, 1½ drachm tartarized antimony, and 1 oz. salt of tartar, which can all be got from any respectable druggist; after mixing well together, to be given in 1½ chopin thin gruel, with ½lb. treacle, which will be found, in almost every case, to operate in two hours. In frosty weather they require to be kept in a warm place, being plentifully supplied with lukewarm water after the medicine, and then only a little straw for the rest of the day. Young beasts, under a year old, will not stand quite half the former dose—say 5 oz. salts, 2 drachms ginger, 3 ditto nitre, ½ ditto tartarized antimony, and 2 ditto salt of tartar. I would advise every man whose stock is afflicted with the epidemic to lose no time in thus treating every beast of the cattle kind about his place. I can guarantee it will not hurt them, but, on the contrary, it will repay all his outlay, which is about 1s. per head, and all his trouble in the fresh growth it will put into his stock. Should the disease still linger about the place, I would recommend a strict observation, and, whenever an animal is suspected of having it, remove it from the rest as soon and as far as possible, and keeping it separate a day or two will shew whether it is the epidemic or not. One test I have never found to

fail: when attacked, they will never be heard to cry, although separated from the rest, even in its early stages. As soon as it is fully proved to be the fact, have him either sold, if at all in condition, or put him under ground as soon as possible; clean the place where he was recently kept, well washing it with lime-and-water, and, after a space of three months, bleed all the stock again.

Now, Sir, if these observations will not occupy too much space in your columns, I may, perhaps, be allowed to make a few remarks on the origin of the epidemic, and suggest a way to get rid of it.

It is a disease of recent date in this country: you will find it about as old as the introduction of foreign cattle: you will find a disease called *chronic pleuro-pneumonia* mentioned by M. Lecoq, teacher of the Veterinary School at Lyons, which was very prevalent on the Continent in 1833, and originated in Franche Comté, where the cattle are worked, and then driven long journeys to market, in want both of food and water, and, being naturally subject to diseases of the chest, a great many fell victims to this fatal disease by the way; and, as the same breeds of cattle exist, and the same methods of working and driving are still customary, we can have very little doubt but the same diseases exist likewise; and as the importation of these cattle is greatly on the increase, and, under the proposed alteration, will go on at an immense rate to increase, so we may expect pleuro-pneumonia to increase in a like ratio. Besides those which have already fallen victims to it out of my small stock, I could mention twelve or fourteen farmers and cowkeepers in this immediate neighbourhood who have suffered much heavier losses from the disease than I have; and no one is safe in buying cattle in a public market. If its ravages continue to spread as they have been doing hitherto, it will furnish a reason to Sir Robert Peel why the price of cattle is getting still higher in the face of so many importations, and may well make him pause before admitting so many more as may be expected, if they are admitted duty free.

No one at all versed in the annals of this country can forget the sad consequences of the continental murrain of 1745, when hundreds of thousands of cattle were swept away; and Government found it imperative to order every diseased beast to be killed, and gave remuneration to the owners, when no fewer than 80,000 cattle were killed, besides what died of the disease. In my humble opinion, the disease now prevalent is one of an equally malignant character; and unless, under the good providence of God, we get rid of it by some means, every one concerned for the good of his country must feel alarmed to think that it may again be laid waste

by its fatal ravages; and thousands have to live on the carcasses of diseased animals without knowing of it, instead of the wholesome food we have been so long accustomed to in this country.

Now, as the admission of foreign cattle duty-free is to be brought before the House some of these weeks, I would humbly suggest, as a means of putting a stop to its future introduction from the continent, that petitions be got up all over the country to bring in a clause in the bill, "That no foreign cattle be allowed to be landed in any port of Great Britain or Ireland without lying in quarantine for thirty days, and then undergoing a most minute inspection by qualified persons appointed by the Government; and, in the event of any cases of pleuro-pneumonia occurring either in the passage or under quarantine, to be subjected to either thirty days, or be sent back whence they came from, at the option of the owner;" as the disease, in all cases that have come under my notice, will be apparent in about thirty days after contagion; and thus, although we may have to fight against what we have got of it, we may escape the consequences of its farther introduction.

Hoping that these remarks will be thought worthy a place in your widely-circulated columns, and that they may be the means of arousing my fellow-countrymen to a sense of the danger of allowing the spread of so formidable a disease to continue,

I am, Sir, your obedient servant,
A PERTHSHIRE FARMER.

THE VETERINARIAN, APRIL 1, 1846.

Ne quid falsi dicere audeat, ne quid veri non audeat.—CICERO.

WE congratulate Mr. Baker, and Messrs. Anderson and Cherry too, on the accession of strength, small though it be, which our present Number shews in the cause of the Veterinary Annuity Fund. It is true we would fain, ere this, have received expressions of assent and support from quarters whose countenance must be acknowledged by us all to be highly conducive, if not absolutely necessary, to the success of such a project as Mr. Baker's: as matters stand, however, we will put the most favourable interpretation on their epistolary silence, and suppose they are waiting the arrival of the time when, by word of mouth, they can manifest

their zealous co-operation. One thing we hope for certain, and that is, that those of our profession whom good fortune has placed in positions rendering it unlikely, or next to impossible, for them or their families to require aid from such a fund, will not, on that account, withhold their support; but, as Mr. Baker says, "may (and *will*) spare a trifle to contribute to the comfort of those less fortunate than themselves." We are glad Mr. Baker thinks, with us, that the day of the general meeting—the first Monday in May—will afford a fitting opportunity for bringing the affair forward. We trust that he will be prepared to do so. Then will the sentiments of—we hope—a large body of the profession be manifested: should which turn out propitious, nothing will remain but to form a Committee for the purpose of considering matters in detail. For our own part, we shall continue to do all in our power towards carrying into execution, what appears to us to be, so happily conceived a scheme of veterinary philanthropy.

South-westerly as the wind for some considerable time, with but few and short interruptions, has been, blowing up cold showers of rain and occasionally hail, it has brought with it, or stirred up among our horses in the metropolis, the spring influenza. Every day almost has, for some three weeks past, been adding to the numbers attacked; but at the time we are writing, the epidemic would seem to be at its height, there being, we believe, at the present moment, more horses suffering from it than at any antecedent period.

The attack* is frequently ushered in by a shivering fit, succeeded or accompanied by a paroxysm of "blowing;" sometimes both occurring, either simultaneously or in succession, sometimes neither being observable. During the blowing or excited state of the respiration—evidently *nervous* in its character—we may frequently notice a tremulous eversion or curling of the upper lip. The rigor, in general, does not last long, though the blowing will commonly continue for some hours, ultimately subsiding into a hot stage, during which we observe the accession of fever, with dejection—a dulness or heaviness amounting in some cases almost to a degree of torpor. This state gradually resolves into febrile catarrh, of

* The horse having been noticed, perhaps, to cough for a day or two, or more, antecedently.

which sore throat is, in general, a prominent symptom. In young horses strangles is likely to supervene. What is to be apprehended, however, is the supervention of bronchitis or pleurisy, running into effusion of water and lymph, pneumonia, and in the end, after lingering perhaps some weeks, phthisis.

Hitherto we have withheld the phleame; and we feel it our duty to say, we have as yet had no cause to regret saving the patient's blood. Our treatment has consisted in clothing the body and bandaging the legs, and otherwise restoring warmth to his superficial and extreme parts, and, on the subsidence of the shivering and blowing, exhibiting a nauseating aperient dose of cathartic mass, regulating the action of that by enemata if too little, by water-gruel or linseed tea, &c. if too great. This we follow up by fever medicine, combining camphor, antimony, and nitre. What is of very great consequence in the treatment is, the paying all possible attention to the practice of counter-irritation. The turpentine and ammonia liniment may be freely used to the throat, breast, and sides, in the first instance; subsequently, in cases requiring them, blisters and rowels and setons. Causing the patient to inhale, at frequent intervals in the day, the vapour of hot water, proves an excellent soother of the inflamed and irritable air-passages, at the same time that it promotes or elicits discharge from them.

REVIEW.

Quid sit pulchrum, quid turpe, quid utile, quid non.—Hor.

The Horse in Health and Disease; or, Suggestions on his Natural and General History, Varieties, Conformation, Paces, Action, Age, Soundness, Stabling, Condition, Training, and Shoeing: with a Digest of Veterinary Practice. By James H. Winter, M.R.C.V.S., and of the Association Littéraire d'Egypte; late Veterinary Surgeon to Mehemet Ali and Ibrahim Pasha. 8vo, pp. 376. Longman, 1846.

The announcement of a work from the pen of a gentleman, "late Veterinary Surgeon to Mehemet Ali and Ibrahim Pasha," had naturally filled our mind with pleasurable anticipations about

Egyptian and Syrian horses, and, perhaps, Turkish too; as well as about the state of veterinary science, and how its professors or practitioners—if there were any—fared in countries whose manners and customs, soil and productions, were altogether so different from our own. We had pictured to ourselves, in addition, some accounts of the vice-royal stud and stables, and of that cavalry of which Napoleon is reported to have said, "Give me Mameluke horse and my French Imperial Guard, and I will conquer the world*." But, no!—we were wrong in our preconception. The absence of any intimation of the kind in the author's preface, with subsequent dips into the body of the work, shewed us Mr. Winter's production was a sort of compressed general treatise—an epitome, in fact—of "The Horse in Health and Disease." When we came, however, to reflect what a wide sphere of subject-matter such a title embraces—there being, according to the author's own shewing (in his title-page) comprehended in it, "natural and general history, varieties, conformation, paces, action, age, soundness, stabling, training, shoeing, and veterinary practice;"—and to find that our author had contrived to squeeze it all into the space of an 8vo volume of not more than 365 pages of pica, we felt convinced some of the subjects must have been cut short; and we must confess we suspected, when we saw it stated in the Preface that it had been his endeavour "to make his treatise a vehicle for introducing to the lovers of horses *his own views*," that on other subjects the author might, from his limited space, have been induced to sacrifice at the shrine of "his own views" those of others—by making the latter a sort of relief or back-ground to the former. Such, however, we were happy to discover, was by no means the case. On the contrary, Mr. Winter has, within the limits he has assigned himself, on each respective topic save the two last, contrived to introduce matter of a character that will not only interest the professional man, but to the general reader will afford both information and amusement, and has this conveyed in fewer words and more scientific language than in any work of the kind with which we are acquainted. In proof of this we shall now present our readers with some extracts; taking, under the heads of the several chapters, as we read on, those paragraphs in preference which appear to have been suggested by the author's residence in Egypt.

In chapter I, on "The natural history and zoological classification of the horse and his congeners," we find the horse held up in just estimation:—

"If he is not found equal to the dog in intelligence and personal

* The Mameluke horse, or cavalry, we believe, no longer exists; and the present Egyptian (conscript) cavalry, we are given to understand, are comparatively tame and unformidable.

attachment, to the elephant in strength or to the camel in utility, he certainly takes precedence of them all in general utility and universality of application." P. 4.

Classically and definitively arranged in the animal creation:—

" Division, *Vertebrata* (possessing a back bone).
Class, *Mammalia* (such as give suck).
Tribe, *Ungulata* (hoofed).
Order, *Pachydermata* (thick skinned).
Family, *Solipeda* (uncleft-footed).
Genus, *Equus* (the horse species).
Equus Caballus, the horse.
E. Hemionus, of Pallas, the dziggtai, Asiatic.
E. Zebra, the zebra,
E. Burchelli,
E. Quagga, the quagga,
} South African.
E. Asinus, the Ass." P. 13.

Electricity producible from the Skin of the Horse:—

" The skin of the horse is endowed with another remarkable and curious property—that of becoming electrically luminous under certain conditions. I believe this fact has not been hitherto noticed. It is somewhat similar to that previously known to belong to the integuments of the cat, but differing slightly in its manner of discharge. This animal electricity appears to be governed, in a great degree, by the condition of the animal and the hygrometrical state of the atmosphere. Upon using a stiff brush or currycomb on a dark night in dry weather, a gleam of electrical light will become perceptible, following the instrument, particularly when applied over the back, loins, and sides. The discharge of electricity from the back of a cat is accompanied with a crackling noise; the usual attendant of electrical phenomena is isolated, or rises from separate points, and most evidently inflicts a painful sensation on the animal: in the horse no such detonation is heard; the discharge is general, from the whole surface in contact with the instrument, and does not appear to be at all painful to him." P. 19.

Use of the False Nostrils:—

" On putting the fingers into the nostrils, at the upper and outward part, they pass into blind pouches of considerable dimensions. These curious cavities have nothing to do with smelling, because they are lined with a reflection of common integument; but they may possibly be of use in mechanically distending the external entrance of the nostrils, and thus materially facilitate respiration during violent exertion. They are also brought into use when the

animal neighs; and the Hungarian soldiery slit them up, to preclude the possibility of being prematurely discovered to the enemy by the exercise of this habit." P. 21.

The Ass:—

"In Sardinia is found a race of asses very little larger than dogs; they seldom exceed two feet in height, and are in all other respects proportionably small This animal had been introduced at an early period into these islands, but curiously became extinct for several years. Hollinshed informs us that, in the reign of Elizabeth, 'our lande did yeelde no asses;' but we must not suppose that this animal, so useful to the poor man, had not been previously known in England, for there is satisfactory historical evidence to the contrary. As early as the time of Ethelred mention is made of the ass, and again in the reign of Henry III; yet after that we altogether lose sight of him, until his re-introduction on the revival of our intercourse with Spain." P. 34.

Chapter II, Breeding:—

"Perhaps there is no country wherein the principle of like producing like is, with regard to horses, at one time so closely adhered to and widely departed from as in England. Those who breed for the turf have been taught by long experience the value of the precept, and therefore carefully act upon it, using the utmost caution in the choice of both sire and dam, so as to combine and render permanent the qualities possessed by each; while, on the other hand, among the general body of agriculturalists, the most reckless disregard is given to all that foregone experience has proved correct, and it is not surprising that they fail in ameliorating their stock, seeing that they neglect the steps necessary to insure it." Pp. 40, 41.

"Our heavier sorts of horses have not been without improvement from a judicious system of crossing with those of analogous nature from other countries. An instance exists in the benefit which followed an early importation of the Flemish horse. In breeding animals, no matter of what kind, attempts to enlarge a native race, by any plan of crossing, will be found destructive of their energy, if at the same time a proportionate increase in the supply of food be not provided; and such mistaken practices, when generally adopted, have been attended with the most irreparable mischief; for it is a mistake of the most serious nature to attempt an increase of bulk by crossing the indigenous race with others of large breed, without supplying sufficient nourishment to sustain their enlarged proportions. The attempts which have been made in India to increase the size of the native Indian horse by the introduction

of stallions from England must eventually fail; for if the animal resulting from the cross is of greater bulk than the soil, climate, and productions, will support and tolerate, then must it be at a sacrifice of its energy and constitution. India must not look to England for permanent improvement in her race of horses: the respective nature of the two breeds is too widely separated to unite and form a race calculated to excel and *endure* on her arid plains. If she wishes to increase the stature of her horses, she must provide for that enlargement by augmenting in the same ratio the quantum of food supplied. Arabians or Persians, of the purest breeds, are far more likely to be the means of lasting improvement, from the similarity of 'habitus,' and close approximation in form and size." Pp. 43, 44.

"More valuable horses for general uses, and more good racers for turf purposes, have been thrown by mares advanced in life than by those of immature age." P. 46.

"The Arabs never allow the foal to remain with the mother more than thirty days after its birth; it is then weaned, and for the space of a hundred days more is not permitted to have any other food than camel's milk; even water is not allowed: a little wheat soaked in water is then given, but camel's milk still continues to form the colt's principal food. Such is the diet for another hundred days, but during the latter part of this period he is permitted to feed occasionally upon scanty grass near the tent, and to drink water. This second space of a hundred days having fully elapsed, barley is given, and the quantity of milk increased. The Nedjd Arabs substitute for corn a paste composed of dates and water*." P. 53.

"The Egyptian horse possesses, as might be expected, a great infusion of Arab blood. To this it owes all its good qualities; for the fellahs, by whom the principal part of the horses of this country are bred, are highly negligent, and quite innocent of any attempt at improvement. This probably arises from their own depressed and enslaved condition, and the insecurity of their property. Few of the Egyptian horses stand above fourteen hands, and the majority of them are considerably under that height. They have neither the beauty of head which is found in the Nedjd Arab or in the English thorough-bred horse; for, although the forehead is as broad, yet the nose is much more elongated, and detracts materially from their beauty. The neck is short and thick; the barrel circular and well ribbed. The croup too often falls away from the horizontal, but the haunches are rotund and muscular. Their fore-legs are placed considerably under the body, and they would be regarded in England as 'standing over.' This is a formation very

*Burckhardt's Notes on the Bedouins and Wahábys.

general amongst all classes of horses in the East, and is caused by the constant habit of hobbling the fore-legs to the hind ones while in the stable at rest. It offers a good illustration of the power which a custom continued for numberless generations has on the proportions and form of the existing animal. Their legs are exceeding clean, and their feet good and free from contraction. Splints are nearly unknown. Spavins sometimes occur, from the Arab habit of throwing a horse on his haunches for display, which is likewise a frequent cause of abdominal hernia. They are active, enduring, and extremely sure-footed. Few blind horses are seen, which appears rather extraordinary, as blindness is so very frequent among the people. The prevailing colours are the grey and chestnut. Castration is not practised. The most frequent diseases are mange, farcy, and glanders. Many Egyptian horses find their way into this country under the name of Arabs." Pp. 65, 66.

Chap. IV, "The Paces, Action, Draught, Safety, and Speed."

The author, in strong language, condemns the bearing-rein; his condemnations, however, are not altogether unqualified: "I am anxious, in this place, to add my anathema against that inhuman instrument of torture, the bearing-rein. It is no less detrimental to the utility of the animal than it is replete with agony to him. It must have been invented by a savage, and can only be employed by the insensate. Whence the benefit of unbearing a draught-horse when going up-hill? Because the head can then be thrown into its natural position, and materially assist by its weight in drawing the load. If it is beneficial to loose the head at that time, it must also be so on other occasions. Look at the elongated mouths of the unfortunate animals thus so wantonly abused—torn by the bit in their unavailing efforts to overcome this truly barbarous instrument! What produces that dreadful disease, poll-evil, but the action of this cruel strap; constraining the head during the violent exertions of the animal, producing inflammation and ulceration of the point upon which it articulates with the spine? Poll-evil, so generally supposed to originate from blows inflicted on the part, is attributable alone to the gagging-rein. I never saw a horse used entirely for the saddle attacked with this affection. In order to obtain momentary relief from the torment inflicted by the bearing-rein on the poll and mouth, the poor creature is compelled incessantly to toss up his head. By thus strapping down the head you say, practically, 'I expect you to draw a certain weight, but I will take away part of your power of doing so.' Some have urged, that the bearing-rein contributes to the safety of the animal, who, without it, would be more liable to come

down. However applicable such an argument may be to those employed in quick draught—though even with them the utility of this instrument is not only exceedingly doubtful, but fast giving way to a more rational method of treatment—it assuredly does not apply to cart horses, for little fear is ever entertained of their falling; and broken knees, so common among the faster breeds, is rare amongst them." Pp. 113, 114.

The *Trot.*

"The Persians, the Arabians, and the Moors of Barbary and Morocco, whose habits are so purely equestrian, do not suffer their horses to adopt this pace, probably from the fact of its being less pleasant to the rider." P. 116.

On Racing the author makes the following judicious comments:—"It must be obvious that the practice of racing should be such as to encourage and promote the qualities desired to be perpetuated, and such as are of the greatest public value. Thus in Persia, continued speed being the object required, the race is protracted for several days, so as to be a severe test of endurance; a quality of considerable importance in travelling from one part of the country to the other, and in transmitting expresses. On the contrary, in South America, where sudden speed is useful, and commonly called for in taking wild cattle, the race is exceedingly short. In these instances the qualities sought to be encouraged are those of the greatest and most common use. So in England, something besides speed being requisite, it should be the study of those possessing influence in these matters to direct the public taste to the encouragement of qualities of national importance. Marshal Marmont judiciously observes on this topic, that 'Les encouragemens, les prix, les primes, devraient être calculés sur des épreuves applicables aux besoins des divers usages publics et domestiques, et non pas être la récompense d'un mérite idéal." P. 129.

Chap. V, "Demonstrations of the Horse's Age."

"Horses at twenty years old are often met with in cases where the least humanity has been bestowed on their management. Eclipse died at the age of twenty-five, Flying Childers at twenty-six. Burns's mare Maggie attained more than twenty-nine years*. Bucephalus, the celebrated horse of Alexander of Macedon, lived

* "Its now some nine-an'-twenty year
Sin' thou was my guid father's meere;
He gied me thee, o' tocher clear,
An' fifty mark:
Tho' it was sma', 'twas weel-won gear,
An' thou was stark."

The Auld Farmer's New Year's Salutation to his Auld Mare Maggie.

till thirty. The natural term is probably between twenty-five and thirty years. A faint and uncertain guide is found in the register of the ages of some of our most celebrated racing stallions, recollecting, however, that several of them were destroyed on becoming useless for the purposes of the turf. The united ages of 93 of these horses amounted to 2005 years, or rather better than 21½ years each horse. Professor Pessina estimates it at 30 years; Mr. Percivall rather higher; and Cuvier from 30 to 40. Instances are frequently noticed of horses attaining the age of 35, and Mr. Blaine mentions one which was attached to the Woolwich riding-school as being 40. Mr. Titchmarsh, of Kneesworth, Cambridgeshire, had a grey pony which died in February, 1840, at the great age of 41 years. Culley, in his work on *Live Stock*, &c., mentions a horse which had received a ball in its neck at the battle of Preston (1715), and yet lived until the year 1758: if it be allowed to have been four or five years old at the time of receiving its wound, it must have been nearly 48 years old at its death. Pliny remarks that many horses attain the age of 50 years, but that mares do not live quite so long. It is most confidently asserted that a barge-horse belonging to the Mersey and Irwell Canal Company attained the surprising term of sixty-two years. The Athenian chronicles record that a mule had reached the age of eighty; and to terminate the list of equine Methuselahs, Rankin, in his *History of France* (vol. ii, p. 315), cites Flodart, an old historian of that country, who asserts that, in the year 931, a horse had reached the truly patriarchal age of 100 years." Pp. 141, 142.

Chap. VI, "Veterinary Jurisprudence."

"We must attach to the word 'soundness' nothing more than a present and prospective fitness or capability of performing duty, without regard to age, blemishes, or conformation. *A horse is sound, provided there be not a total or partial loss of function, preventing, or calculated to prevent, the animal from performing the ordinary duties of a horse of his class.* The principal question to be taken into consideration is,—Does or will the deviation from the normal condition incapacitate the animal from rendering to the owner the usually required quantity of labour, at the same time bearing in mind the order or class to which the horse belongs? for there are some functional deviations from the natural standard constituting unsoundness or unfitness for one description of employment or labour, which would not be held objective or detrimental in other kinds. For example, a modification of structure and function which would unfit a race-horse, a hunter, a hack, a charger, or

a carriage-horse, for his duty, might not in the least impair the utility of a farm-horse, a cart-horse, or a dray-horse." P. 157.

> "When may a horse be called sound,
> When no disease upon't be found;
> When neither blind, nor broken-winded,
> Nor lameness, has just begun or mended;
> Nor any cause at time of sale
> That 'gainst his duties may prevail?"

Chap. VII, "Stable Economy."

"In the majority of stables hygeinic measures are nearly disregarded, and the directing principles which should regulate their construction are too generally misunderstood or sadly neglected." P. 172.

"The Arab litters his khayle with a shallow bed of dried horse-dung, which is daily removed and exposed to the sun: a similar practice obtains throughout Persia. In Egypt the floor of the stable is covered with fine desert sand, which is repeatedly changed, and never allowed to be saturated with moisture; and in no country in the world are the feet and legs of horses more free from disease." P. 177.

"In Egypt, the machine which thrashes the barley at the same time cuts the straw into short pieces (tibbin). This is packed in large coarse nets, and employed very extensively as food for horses and camels." P. 184.

"In Arabia and Egypt, horses are commonly watered but once a-day. In Persia, the custom is to give them water at sunrise and sunset. In England, they are usually suffered to drink thrice during the day." P. 191.

"In this country horses are seldom bathed; but it is the custom in Prussia to attach to the cavalry barracks a capacious basin for swimming the horses in. In summer time this is used nearly every day. During the hot weather it cools and cleanses the skin, and contributes to maintain the horse in a healthy state. When in Egypt, I frequently ordered large numbers of sick and healthy horses to be bathed in the Red Sea or the Nile, which practice was constantly attended with the most salutary results." P. 200.

"The peculiar manner in which an Arab horse carries his tail has for a long time excited admiration. It results from the form of the croup, which may itself be an effect of art continued for a long series of ages. It is possible that this deviation in the position and carriage of the tail may have been first induced by the invariable Eastern custom of keeping the tail shorn of its hair during the period of growth. The colt is docked early in life, and from that time the dock is kept constantly trimmed until the fourth or

fifth year, or even later. This practice, by removing the weight of hair which tended to press down the tail during the colt's growth, has the effect of improving its permanent position, and giving rise, in the course of many generations, to a slight deviation from the usual construction of this part of the frame." Pp. 206, 207.

These extracts will fully shew our author's pretensions to notice. The two remaining chapters—one on "Shoeing," the other devoted to the "Diseases, Operations, Medicines, and Medical Treatment, arranged alphabetically,"—we could wish had formed no part of a work really possessing, in other respects, no ordinary merit. The little that can be said in seventeen pages of 8vo on such an all-engrossing subject as "shoeing," and the comparatively less space still allowed for treating the several headings and sub-headings comprised under *Diseases and Operations, and Medicines and Medical Treatment,* makes us unwilling to touch on these two last chapters; and we can only repeat our earnest wish that the author himself had never done so. We will, however, in justice to him, insert here his apology for so doing, and with that close our notice of his otherwise interesting work; after again expressing our assurance that all our professional and horse-loving friends will, as we have done, experience unfeigned gratification from the perusal of it.

"In the last portion of subject the author has been led to offer a *précis* of Veterinary Practice; not in order to induce, or enable, the horse-owner to attempt the medical treatment of his own animals, and so dispense with the services of the veterinarian, for such an object would be nugatory, as well as pernicious to his best interests, unless, at the same time, it were possible to establish in his mind the elements and principles that direct the healing art. The horsekeeper has no greater enemy, and the veterinary surgeon no better friend, than the unskilled dabbler in physic. From it, however, he may gleam a knowledge of the causation of disease, and so be armed for its prevention. He will learn that it is easier to prevent than cure; more to his own advantage to ward off the attacks of disease, than to undertake its treatment.

"The young practitioner may also collect, from the pathological and therapeutical axioms, hints which his own preliminary scientific education will teach him how to apply. Something may be gained by recapitulation; and new combinations, even of old thoughts, are frequently suggestive of considerable improvement." *Preface,* pp. v, vi.

THE

VETERINARIAN.

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OBSERVATIONS ON THE PRESENT STANDING OF THE VETERINARY ART, AND SUGGESTIONS FOR ITS IMPROVEMENT.

By W. Arthur Cherry, *V.S.*

"We must, with all our strength, prefer reason to custom; and we must not use the triple argument—that is to say, this has been laid down, this has been usual, this has been common, therefore it is to be held by. For the very opposite conclusion does much better follow from the premises. And though the whole world be possessed by these causes of error, let us freely hear opinions contrary to established usage."—*(Friar) Roger Bacon, opus majus, obiit* 1284.

"Before *adding*, accumulating, one must *exist*. We must create and strengthen the living germ of the young being."—*Michelet.*

AS we are just on the eve of another general meeting, under the new charter, of the veterinary profession, a few observations on the *status* of its members, and the relative position which human medical and veterinary sciences bear to each other may not be out of place; for unless some means are devised by which that *status* can be raised, the advantages that were expected to be gained by the charter will prove naught. It is certainly to be viewed as *a great gain, the being recognized as a chartered body;* but there still remains much to be done before we can hope to derive the full benefit of such gain.

The following remarks have been for many years a subject of thought, and more extended experience shews me that one of the principal causes of our depression arises from our not having that social rank to which, as professional men, we ought to have granted to us. I therefore trust that the views I have here

expressed will meet with cordial support from my brother practitioners, and such proposals made, and plans adopted, as may seem best suited to attain the desired end.

Many attempts have been made by different individuals to place our art upon a more liberal footing; but this one error seems to me to hold with all, that the appeal has been made to the good sense and kind feeling of those who held us under oppression: as well might the slave hope for redemption from the strength of his wrongs.

It is only by our *acting as a body* that we stand the remotest chance of improving our rank; and it is therefore with this hope that I address myself to the body of my profession at large.

There are also other causes upon which much might be said; for the subject is so important, and there are so many illustrative facts to be adduced in support of each, that it would be impossible in a single essay to enter fully even into any one of them. I have, therefore, taken that which appears to me to be one of the most important, and have endeavoured to condense it as much as possible. The first thing to be done is to be FREE to act independently, which at present we are not; for let us speak or act as we may, we are still, as a professional body, but a germ, growing, it is true, but requiring care and fostering to bring into maturity; therefore, all attempts at precedence and rule are not only futile, but positively fatal. He is the best, the first, who has the power and inclination to do the most towards bringing the young body into active strength.

It is the general practice amongst human medical men (and by consequence the public generally) to place the veterinary practitioner at so low an ebb as to knowledge, that should any member of the latter art enter the lists as a physiologist or pathologist, he is set down as being most presumptuous, and whatever may be the truth or value of his observations, they are scouted as totally unworthy of attention.

Now, so far as the importance and usefulness of the human medical practitioner is considered, from the object of his care being man himself, it may serve as a good reason for the greater consideration paid and the higher rank in the social scale accorded to him; but it cannot serve as a reason for treating with unfair and rude neglect those who have already proved, and might under a proper position be much more, valuable coadjutors in the investigation of the ills to which all flesh is heir; for in practical importance and usefulness the veterinarian is second only to the human practitioner; and when we consider that the first, and for ages the only, knowledge of anatomical structure—the nature of

disease itself—the *modus operandi* of remedial agents—the practicability of all the greater operations—and the numberless animals which have been sacrificed, tortured, oftentimes without just reason, to attain these ends, and, by deduction, these various results applied to and for the benefit of man—it is but fair that the practitioners who have for their immediate pursuit the study of the structure, the diseases, and the best method of ameliorating such diseases among those very animals that have contributed so much towards the knowledge of the human branch of the art of medicine and surgery, should receive that attention to their views and researches which justly belongs to them.

Let us look at the advantages which the veterinarian possesses for obtaining correct knowledge of morbid action, not as existing in one animal only, but in so many, different in constitution, in habits, and even in structure, yet all subject to the same laws of life, and, with all these modifications, still regulated by the same unerring laws both of health and disease: in fact, a series of links in the chain of which man forms the first and largest. The facilities which are at his constant command to examine the post-mortem appearances of *all* cases that have a fatal termination, as also the opportunities, from the frequent occurrence of death from other causes, of noting the changes that may have been produced during active disease from which the animal has recovered, and by these means verifying the correctness of the diagnostic symptoms, as also of the propriety of the remedial means employed; and to these may be added another important point, that is, these examinations can be, and generally are, made within so short a period after death, that no change of any importance can take place in any component part of the animal body; while the reverse is the case as regards man; for, in addition to the difficulty of obtaining the opportunity, it is, when obtained, so long deferred that decomposition has set in, and this frequently to so great an extent, that it is often impossible to decide with correctness what is the result of disease and what arises from changes induced by decomposition*.

Farther: the facilities for testing remedial agents, which cannot by any possibility be employed upon man without being previously tested; for were a human practitioner to test upon man the effects of arsenic, bichloride of mercury, sulphate of copper, nux vomica—indeed, any of the poisons—he, in the event of any untoward effect, would lie under, and justly too, the imputation of *murder*. What human practitioner could have carried out upon man the effects of

* This is no fanciful remark, for I have actually seen it occur that the changes of decomposition have been mistaken for morbid changes produced during life.

hydrocyanic acid? Yet all such experiments can be, and have been, legitimately performed by veterinary surgeons.

No one can for an instant wish to detract from the knowledge, science, and skill of the human practitioner; but all these have been brought about by the ardor of those engaged in the pursuit. It is not so long since but the "barber surgeon," the "apothecary," or, as he was then called, the "leech," were upon a similar footing with the "farrier" or "cow-leech:" indeed, the latter were thought the most of, and very frequently the whole were combined in one and the same individual.

This advancement from barbarism and empiricism has been brought about by the talent and perseverance of its members during a period of about 250 years, aided by the knowledge obtained from the lower animals.

The veterinary art continued, after its separation from its before twin-sister, to advance but very slowly, and the last fifty years, during which it has existed as a recognized profession, has not been taken advantage of to the extent that ought to have been done. Reasons enough could be given to account for this laxity; but it is sufficient for my purpose that it is so, yet it is but just that the opinions of men of research, who record the working of nature's laws, should be received with the respect due to them. It must be too simple a truth to require more than mentioning, that those who pass their lives amongst animals should be better able to appreciate the changes which disease induces amongst them, as also the phenomena of health, than those who, from their very pursuits, are debarred from more than a casual glimpse of them; and hence it is easy to account for the fact, that whenever a human practitioner has attempted to point out remedial agents or general modes of treatment for animals, they have always proved failures.

The PRINCIPLES which have been established by the schools of human medicine and surgery apply with equal force and truth to veterinary medicine and surgery; but though the principles themselves must not be departed from, yet the modifications which disease assumes, the deviations in the *modus operandi* of remedies, the power of resisting disease which different animals possess, not only as regards species, but also as regards individuals of the same species,—all these various points are so much affected by local situation, or good or bad general mangement, and this to a greater degree than *man* under similar circumstances; so that when we consider all these incidental modifications, so apparently dissimilar, are results from similar causes, that disease often appears to have little or no connexion with a type recognized as existing among animals of its own kind, much less does it appear to be connected with a general type existing throughout other

species, though extended investigation would prove it to be so*. Therefore we need not feel surprise, when human medical practitioners attempt the investigation of the diseases of animals, that they should get bewildered in a labyrinth, the clue to escape from which, though perfectly simple, they know not how to unravel.

Since the advent of the late Professor Coleman, himself a human medical practitioner, the incalculable advantages which the veterinary art derived from human medical science has been loudly bruited in every possible way; and this, true to a certain extent, has been so magnified, that it must now appear to all reflecting minds quite a burlesque.

In the departments of anatomy, physiology, pathology, and the materia medica, which are the only true branches of medical knowledge, much has been done in human medicine; but is this knowledge available to the veterinarian? Only to a slight extent: it applies chiefly to man. To whom are we to look for the advancement of our art? It is manifestly clear that it is not to those who have been so long bepraised as our "patrons" and most valuable "teachers": on this point I speak feelingly, having met with so much envious malice and obstruction in the pursuit of veterinary physiology and pathology from human medical practitioners. I speak of the *body:* there have been a few, and but very few, exceptions. As an old student of human medicine I respect them, and have much to be grateful for; but as a veterinarian, I am nothing whatever indebted, not even for co-operation. I doubt not but others can tell a similar tale.

But how much is human medicine indebted to comparative medical science?

This question, so easily answered, has not even been glanced at by any one, that I am aware of: I have already alluded slightly to this part of the subject. On how many points of physiology, pathology, and the modus operandi of remedial or injurious agents, is it not indebted to our branch of art? the list is too long to quote. Hardly a work on general (human) physiology or pathology has

* But this is only so in appearance, for all the true types of disease existing in man may be traced throughout the whole of the higher order of domestic animals; for example, *fever* in more than one form, or, better still, *tuberculous disease*, I have been able to trace in the horse, ass, ox, sheep, hog, dog, cat, rabbit, and, if I am not greatly mistaken, even amongst poultry. I also think that could *wild* animals be continually and carefully observed, they would also be found to be under the same law. Every fox-hunter must have occasionally met with a *mangy* fox, that is, one suffering from skin disease. Some animals, however, are so little prone to various forms of disease, that it requires long and close observation to ascertain their existence; but because they may not, from their rarity, have been noticed, it does not follow that they never exist.

appeared in which their best and most conclusive arguments and deductions have not been drawn more or less directly from the results of experiments made upon the lower animals.

It is true that many of these objects have been gained without the assistance or intervention of any veterinarian; but a large part could have been gained from an observant practitioner, and that, too, in the very best form, and have saved much *cruel* because *unnecessary experiment*. And, again, there are many points which, obscure and often impossible to trace satisfactorily through upon man, could be rendered of much easier solution by the knowledge to be obtained from veterinary science. It therefore follows that the real and positive advancers of our art must be sought for in our own ranks. The plodding observant practitioner, who pays attention at the same time to the higher branches of the science, is the man to whom we must look, and it is only by our own labour that we stand any chance of long continuing as a body.

For more than fifty years we have avowedly been under the tutelage and the fostering wing of the schools of human medicine; but by how much are we now better practitioners than at the commencement?

This modern school may date its origin with the late Professor Coleman; and can we point to one single work emanating from it, during the first half period of its existence, whose fame will outlive its author?—and which of those that have appeared during the latter half period will be exempt from the same fate? Only those, like the best of our old authors on farriery, which are similarly founded on *practical facts, and not on theory;* for extended observation brings round the same train of results, and therefore of opinions; so that, view the subject in whatever point we may, it must still shew the same result; and I cannot too often or too urgently impress this,—that we must depend upon our own efforts for gaining and keeping that position in which we ought to stand. I have shewn that we do actually possess within ourselves the requisites; the more so, as we have, in reality, exercised them.

The example which has been set us by the human medical practitioners ought to act as a useful lesson to us; and if the body of the veterinary profession will but steadily and collectively pursue a similar course, not only will they be advancing the welfare of the body corporate, but, as every thing which raises the general body in importance also by reflection raises the members individually, they will thus, at the same time, be advancing their *own* interests.

Only let us be true to ourselves, and act with equity and moderation, but firmly, and the time is not distant when we shall find our now unfairly neglected and despised art taking its true and

proper place; and whoever takes such a course as tends only to his own personal aggrandisement or caprice at the expense of the body, is not only a false member, but will find that the mischief which he for the time produces will recoil with double virulence upon himself.

I trust that the facts which I have here stated will not be construed into an attempt to detract from the position, or into undervaluing the learning and science of the human medical practitioners, for no one can be more ready to bear testimony to them than myself. I do not attempt to deny that my object is to take from them that which they have for so many years unfairly usurped, viz. the claim of being the whole and sole possessors of *comparative* medical lore: not only do they act upon this assumption, by never alluding to the researches of any veterinarian, but, still farther to mark the utter contempt in which they hold us, we are not considered fit, as *veterinary surgeons*, to mix with them: they declare that we are not fit to become members of their societies, in which we might meet and mutually exchange the results of practical observation. The professional chairs of comparative anatomy and physiology, which by right ought to be ours, are usurped by them: in fact, the body which has been in so great a measure made, or, at all events, sent into the world under the sanction of the names of human medical practitioners of high note, has by its producers been considered to be so worthless a production as to be on all and every occasion treated not only with contumely, but positively as a *non-entity**. But how have we met our condemnators? By making them our Teachers, our Examiners, our patterns for imitation, our idols; by courting them to become the patrons of our art and of our societies; in fact, by every servility.

I therefore must be pardoned, under these circumstances, if I speak strongly; for desperate diseases call for desperate remedies. I have not advanced any thing but what is strictly true, and which probably arises out of existing things. I do not mean to assert that the veterinary profession is what it ought to be: but even here again we may cast back a deep shadow of reproach on the sister profession; for it was in the power of that body, at the commencement, and throughout the career of the late Professor Coleman, to

* Who, having once heard the late Professor Coleman, must not recollect the particular pains which that gentleman took to point out the great benefit —to say nothing of the *honour*—that his pupils derived from being *allowed* to attend lectures on human medicine, and how much their professional knowledge was advanced thereby? In very truth, giving the Lecturers and Medical Examiners the credit of having very much to do in *making* veterinary surgeons.

have prevented, in great measure, that gentleman—who, for the mere lucre of gain, as also probably to render it less likely for him to have *equals*—admitting the improper, uneducated, and totally unfit men with which the profession was for so many years inundated. They were the only Examiners except the *Teacher* himself; therefore it was in their power to have marked their sense of the nefarious proceeding, by the rejection of such as shewed themselves to be ignorami.

Personally, I have many friends amongst the medical profession, but it is not as a veterinary surgeon; and it is this very intimacy which makes me feel the more acutely the position in which that profession stands, to which, in common with many others better qualified than myself, I have devoted my life.

The human medical profession cannot complain of our acting without precedent, for they themselves furnish us with strong examples. The long-protracted contest between the physicians on the one hand and the surgeons on the other—one contesting for very existence, the other for supremacy—ending, as we well know, in the establishment of equality of rank. A similar contest is now actually going on between the pure physicians and surgeons on the one hand and the body of general practitioners on the opposite, and which can only end—as all such contests must—in the establishment of equality of rights and of rank; while I, for the body of my profession at large, only wish to contend for the rank of a *secondary* but INDEPENDENT body. Fourteen centuries since Vegetius well and succinctly expressed the true rank and importance of our art,—

"Ars veterinaria post medicinam secunda est."

April 1846.

ON THE EFFICACY OF GLUE USED AS ADHESIVE PLASTER*.

A LETTER FROM T. A. WALKER, ESQ., TO MR. PERCIVALL.

Sir,—In reading your *Hippopathology*, which afforded me much pleasure and instruction, I observed that, in page 76, you state it difficult to procure adhesion in wounds in horses from the want of any sufficient kind of sticking-plaster. I hope you will not think it intrusive if I state to you a method I have long pursued in such cases with perfect success.

* It is now long since this letter was received. It has, indeed, from having been laid aside with other papers, been forgotten. It deserved better treatment.—P.

I use common carpenter's glue spread on linen, and it adheres so long as necessary; but I do not apply the glued linen across the wound, as in the human subject. I cut two pieces of linen, one for each side of the wound, slit them into tails, and smear them with the liquid glue, except a small margin of the linen which is to lie alongside the lips of the wound. Two pieces are better than one piece, less likely to be displaced by the motion of the horse, and more easily refastened with fresh glue, should any part of it loosen.

Having smeared the glue upon the linen, I also wet the hair and skin of the horse with the liquid glue, except the lips of the wound. I then apply the linen, one piece at each side of the wound, but not quite up to the lips of it, leaving the unglued margin of the linen at least one-quarter of an inch short of the wound. In about half an hour the glue will have dried, and the linen will be quite fast. The whole time it is drying it should be attended to, so as to press any part of the linen close to the skin, which by the motion of the horse might rise up.

When it is quite fast, I, with a needle and thread, sew the two unglued margins of the linen together; and as they were not quite close originally to the lips of the wound, you can compress the lips of it into as close contact as you please, by closing the stitching of the linen tight. The use of leaving the margin of the linen without glue is for the purpose of sewing it, as the needle would not readily penetrate the glued linen.

It is evident that, according to the position of the wound, the shape of the linen strips or tails must vary. I have found it useful to have one or two of the tails pretty long, so as to take a better hold of a greater surface of the skin; also that piece of linen which is to pull against the grain of the hair is the most difficult to secure, because the hair gives with it to a certain degree, and in placing that linen allowance should be made for that circumstance, and to place the margin of it a little further from the wound, so that the margins of the linen, when sewn, shall not meet sooner than the lips of the wound.

By this method I have cured, with scarcely any blemish, and in an incredibly short period, several very severe wounds. Of course, where necessary, it is easy to leave any portion of the wound unclosed, for any matter to run off. The first case in which this method occurred to me was a very spirited mare which ran away with a jaunting car down a steep hill, to which there was a parapet wall coped with flags upon thin edge. She struck her shoulder against the edge of the coping at the top of the hill, and rubbed against it all the way to the bottom, so that when she arrived at the foot of the hill, where she fell almost without motion, the entire

flat side of the shoulder was a mass of raw torn flesh. There was a great loss of flesh and skin. The mare was brought to me, and the owner being a poor man, and I knowing the mare to be a good huntress, I gave him £10 for her on chance of her recovering, though there appeared very little chance at the time.

I cut off some lumps of flesh which were hanging. I then drew the skin with stitches together, which I knew, however, would not hold unless I could secure the skin in the position I had brought it, or until I could apply something in the manner of sticking-plaster to assist it, particularly as the wound was running in various directions; and in consequence of the loss of skin, I had to force what remained out of its natural position. I knew the ordinary plasters would not do, and, some carpenters happening to have glue for their work in the stable, I thought of trying it.

I first covered the whole side of the shoulder with *one* piece of glued linen. This, however, was a failure, for long before it dried, the trembling and shuddering of the skin where the wound was situated quivered up the linen into a loose bag over the wound. It then occurred to me to glue separate pieces of linen with thin edges cut so as to follow the shapes of the lips of the wounds, and, when dry, to sew the edges together. I did so, and it perfectly succeeded.

I kept the mare in a loose house for about a month. I bled her at first, gave her constant laxative balls, fed her well with soil and boiled oats; and at the end of the month, observing the drain I had left in the lowest part of the wound dry, I wetted the whole shoulder with warm water, soaking it for about half an hour. The glued linen all came away, the skin was perfectly healed, and nothing to be seen but a few scarcely perceptible seams where the skin had been brought together. She carried me well in the field that season and the next, and, for several years after, hunted well with a gentleman I sold her to. No one unacquainted with the circumstance would have perceived any blemish on her shoulder.

The next case was a hunter who had cut the sheath of the back sinew of his fore leg with the toe of the hind shoe in leaping. I treated it in the same way, by glueing a piece above, another below the wound, and, when dry, sewed it together, and with the same success. In this case I left long tails to both pieces of linen, so as to wrap round the leg of the horse, the better to secure it.

Another case was a very bad cut knee. It seemed as if cut in the fall with a slate or sharp-edged stone. I placed a glued linen above and below, getting a good hold for each, as I stated before, by turning the tails of it round the leg; and, by sewing the edges of the linen together, the lips of the cut were brought into close contact, and healed well. I have also found this plan good where

a foal shewed symptoms of rupture: putting two glued strips with their ends terminating at each side of the swelling, and then stitching them together, reduced it completely.

I hope you will excuse my writing this letter, which I have done in a hurry, and which, perhaps, contains nothing but what is well known to you; but, having tried this plan with success, I thought you would not be offended at receiving a hint even from a mere amateur.

Your obedient servant.

LETTER FROM MR. MOGFORD, GUERNSEY, ON CORNS IN HORSES.

To the Editors of "The Veterinarian."

Gentlemen,

PROBABLY many will attribute it to my dulness of apprehension, some to the limited range of my reading, others to the effect of preconception, but I acknowledge I have never seen the *nature of corns* explained to my satisfaction.

May not the representations commonly received be traced, in part, to that association of ideas which would seem to assume that their origin must be ascribed to the same cause as that which occasions them in the human subject? It seems to me, the very appearance it bears in the animal indicates an effect in the production of which others than the cause generally assigned must have operated.

It would not appear satisfactory, in my opinion, to say, that however fair the comparison between the two cases may be as far as the *cause* is concerned, it cannot be instituted as to the *effects* exhibited, the substance of the animal's foot not admitting of that excrescence of which consists the injury our own flesh sustains. Be that as it may, I imagine that at some period in the process of formation there must have intervened more than simple pressure.

Circumstances come under the notice of an attentive observer which, relatively considered, may somewhat elucidate the subject.

The multiplicity of cases would go to prove that horses with upright bars and narrow heels are very subject to corns. Not unfrequently a horse will be very lame for a few days: suppuration takes place; some matter subsequently escapes between the hair and the hoof, and, when relief has thus been obtained, the animal goes sound again. Let the shoe be taken off, and the foot be ex-

amined. If the hand be expert in the search, he will not expect to find any thing till he gets up nearly level with the bar. The event will uniformly prove he is right. If occasioned, as is generally supposed, by the shoe pressing on the sole between the wall and the bar, should we have to cut so high up into the horn to find the seat of disease? Often, through the too frequent ignorance of the person employed, when the shoe is put on, it is made to bear equally on the wall and on the bar at the heel. The fact ought to be well known, that, if the shoe be allowed to bear so hard on the heel, lameness will ensue. That it must be attributed to this blunder can be proved to demonstration; for if the shoe be taken off, and it be altered so as to be thrown a little off the heel, it may be nailed on afresh in the very same holes, and the horse go perfectly sound. This is easily accounted for by attending to the regular play of the part, the sensible foot pressing down into its horny case every time the limb comes in contact with the ground.

As we know the region in question, which is so exquisitely sensitive, is filled with bloodvessels so manifold, and admirably distributed that a piece of Valenciennes lace would fail to give an adequate idea of its delicacy, I cannot but infer, that, owing to the resistance which the vertical bar offers to this portion of the foot, extravasation takes place. Is it not highly probable that its consequence is a deposit, which, acted upon by concurrent causes, eventually assumes the form of what we call a corn?

Hoping the suggestion I venture to throw out may lead to a more complete and satisfactory examination of the subject,

I remain, Gentlemen,

Your obedient servant.

A PATTERN FOR A VETERINARY ANNUITY FUND.

Furnished by Mr. JAS. ANDERSON, *Leicester.*

To the Editors of "The Veterinarian."

Gentlemen,

THE following is a copy of the rules for establishing a General Medical Annuity Fund, approved of 8th Sept. 1845, which, with a little alteration, might be adopted for the Veterinary Fund, both being grounded on the same basis and equal amount of yearly subscription.

Rules.

1. That a society be established for granting annuities to superannuated or disabled members of the medical profession, their widows and orphans; and that it be called "The General Medical Annuity Fund."

2. That the appointment of the officers of the General Medical Annuity Fund be vested in the Provincial Medical and Surgical Association.

3. That the General Medical Annuity Fund be under the management of a president and sixteen directors, who shall be subscribers to the fund. The officers shall consist of a president, who shall be the president of the Provincial Medical and Surgical Association for the time being; four trustees, a treasurer, and a managing director, who shall be permanent officers; ten annually elected directors, and a paid secretary. The trustees shall invest the funds of the society in government securities. The treasurer shall, by his banker, receive subscriptions from the secretary, and shall pay over the same to the trustees as soon as they amount to £100; and he shall pay the annuities as the same may be granted and become due. The managing director shall conduct the general business of the society; shall countersign all receipts for subscriptions; transmit to the directors, ten days prior to their annual meetings, the names of the applicants for annuities; prepare the annual report, and call special meetings of the officers of the fund, at ———— when the same may be required. The elective managers shall, with the other officers of the fund, direct the management of the business of the institution, and determine upon all applications for annuities. The secretary shall receive all subscriptions and donations, shall give proper receipts for the same; shall pay over the money in his hands to the banker of the treasurer, as soon as it shall amount to the sum of £25; shall keep the books of the institution, preserve all letters and papers addressed to the society, and shall retain copies of all papers and documents issued from the office; moreover, he shall attend upon the treasurer or his bankers when required; and appear at all meetings of the directors, with all the books, papers, and necessary documents.

4. That any legally qualified medical practitioner in the united kingdom may become a member of the General Medical Annuity Fund by the payment of an annual subscription of one guinea; the same to be paid in advance, and to be due on the 1st of July in every year. Subscriptions will be received from new subscribers any time prior to the 30th day of June in each year, when the annual accounts will be made up; but every subscription must be renewed within three months after the 1st of July in each year.

At the expiration of the fifth consecutive year of his subscription, any member, or his widow or orphans, will become eligible to receive an annuity. Subscriptions may be paid in advance for any number of years; but no member, or his widow or orphans, will be eligible to receive an annuity unless the member survives five years from the payment of his first subscription. Any member neglecting to pay his subscription within three months from the 1st of July, shall be written to by the secretary, and reminded that his subscription is in arrear; and if the same shall not be paid within one month from the date of such notice of arrear, the subscriber shall lose, *ipso facto*, his title of membership; but he will be eligible to commence again as a new subscriber. If any member shall publicly advertise any secret medicine, or publicly advertise to cure any diseases empirically, he shall cease, *ipso facto*, to be a member of the General Medical Annuity Fund. Subscribers, on paying their first subscription, must give in their christian and surname, and their residence, at full length, together with their age last birthday.

5. All applications for annuities must be addressed to the managing director, not less than fourteen days prior to the annual meeting of the directors, accompanied with accredited testimonials. The payment of the annuities will be made by the treasurer half-yearly in advance; the names of the annuitants will not be published otherwise than by their initials; and a certificate will be required half-yearly, stating that the annuitant still requires the assistance of the fund. For every one hundred subscribers there will be three annuities, not exceeding £25, to superannuated or disabled members; and three annuities, not exceeding £15, to widows and orphans.

6. The annual meeting of the directors of the General Medical Annuity Fund should be held during the sittings of the Provincial Medical and Surgical Association; and special meetings of the directors may be convened by the secretary, at the requisition of any two of the trustees or elective directors.

At the annual meetings, the minutes of the preceding meeting, together with the minutes of any special meeting held during the year, shall be read, approved, and confirmed. The directors shall ascertain the number of subscriptions and amount of donations paid during the year; the amount of government securities obtained or paid off during the year; the number and amount of annuities paid, the amount of balances in the hands of the treasurer's banker, and secretary, and enter the same respectively on their minutes; they shall deliberate upon the applications for annuities, and determine thereon. The chairman shall see that the minutes are properly entered, and to have the casting vote.

7. At the annual meeting of the Provincial Medical and Sur-

gical Association, the directors of the General Medical Annuity Fund shall report the general state of the affairs of the institution. The existing rules and regulations may be altered, if it be found expedient. Any new rules which may be considered necessary may be proposed for adoption at the following annual meeting. Vacancies in the number of trustees or other officers shall be filled up. The elective managers shall be appointed, and shall consist of not less than ten members of the Provincial Medical and Surgical Association; not less than four of whom shall be resident in the district where the annual meeting of the Provincial Medical and Surgical Association is intended to be held; and any six of the directors shall be eligible for re-election. The president shall see that the minutes are properly entered, and to have the casting vote.

ON THE ARRANGEMENT AND FUNCTIONS OF VARIOUS TENDINOUS STRUCTURES IN CONNEXION WITH THE FORE LEG OF THE HORSE.

By JOHN BARLOW, *V.S., Edinburgh Veterinary College.*

IN the "*Veterinary Record*" for April of the present year, there is an article by Mr. Mayhew, containing some observations with reference to the "distribution and use of tendinous structure as connected with muscular fibre" in the fore leg of the horse. The object of these remarks appears to be, first, to prove that tendinous fibre is not only concerned as an adjunct to muscular tissue during active conditions of the limb, but that it is also, by its comparative insensibility and great physical strength, conducive towards preserving the articulations individually, and the extremity as a whole, in such a position as to support the body without involving undue expenditure of muscular power. In the next place, the author proceeds to shew, that, for the performance of these functions, there exist "structures" which, so far as he is aware, have "been hitherto unobserved:" and again, in the absence of "actual experience," to back his "assertions," states, that he declared some of the structures alluded to to be the seat of "that injury denominated sprung tendon;" and, after having "hazarded the assertion," finds upon dissection a case confirmatory of the opinion.

Against the ideas themselves, so far as they go, which are involved in the statements contained and expressed in the essay, I have not any material objection to make. The object of my present remarks is rather to state my surprise, and the reasons for entertaining it, that either the structures described by Mr. Mayhew, or

the diseases to which he has "hazarded" to consider them liable, should be considered as having "been hitherto unobserved."

With reference to the first of these heads, regarding the inadequacy of muscular and the power of tendinous structure in sustaining weight and the integrity of articulations, either in a state of activity or otherwise, I have little to say additional to what is expressed by Mr. Mayhew; for his statements, although conveying a summary of what is well known to be the case, do not apparently contain any thing regarding the properties of these tissues which has "been hitherto unobserved." Numerous evident illustrations of the uses which white and yellow fibrous tissues serve in exempting muscular substance from fatigue and stress are seen in the body of the horse. The fore and hind extremities afford many instances of this, in the connexions which some of their muscles and bones possess with special arrangements of tendinous and ligamentous structures. The way in which the head is sustained is a case shewing, as is well known, the admirable adaptation of the almost insensible yellow elastic tissue in passively maintaining a condition which it would require considerable expenditure of muscular power to execute. The arrangement of tendinous structure, forming the inferior boundaries of the abdominal cavity, exemplifies a fulfilment of a corresponding end by corresponding means. It may be objected to the latter example, that the weight of the abdominal viscera, though falling immediately upon the insensible aponeurotic structure, must of necessity be determined ultimately to the muscles of which the aponeuroses are but continuations. But to obviate, under all reasonable conditions, the fatigue or injury likely thereby to be induced, there is, enveloping both tendinous and muscular structure, a dense expansion of yellow elastic fibrous tissue, possessing attachments bony or otherwise, corresponding with those of the external oblique muscle of the abdomen, and which of course affords, as in the horse and ox, a powerful yet untiring support to parts which might probably be inconvenienced by fatigue and structural injury also. This is a *structure* not noticed by many veterinary anatomists*, yet so obvious is it, both as to *situation* and *use*, that I could scarcely suppose it had "been hitherto unobserved." In every muscle of the body destined for the performance of actions energetic in their nature, we find, as is well known, a large proportion of tendinous fibre; for instance, the masseter and pterygoid muscles in the head, the serratus magnus, longissimus dorsi, and others on the trunk, are familiar examples. And in animals like the horse, whose structural conformation so beautifully adapts them for peculiar purposes, we

* Mr. Percivall has described it under the name of *Faschia Transversalis;* and has represented it to be "of essential service in sustaining the burden of the dependent viscera."—*Anatomy of the Horse*, pp. 127-8.

find in the extremities, *more special* modifications of the same tissue in the characters of tendons and ligaments, uniting bone to bone, or muscle to bone, and so anatomically arranged as to associate them in a manner the most advantageous for symmetrical appearance, and for purposes of strength, whether actively or passively required.

In conformity with the carrying out of these important objects, the arrangement of tendinous tissue in the vicinity of the shoulder joint is, as Mr. Mayhew observes, such as to obviate, so far as may be, muscular substance from the effects of traction, and to fulfil the purposes of ligaments to the articulation: yet, in the description which he has given of the anatomical distribution of this tendinous tissue, there cannot be any thing "hitherto unobserved" by the anatomist. In many of the muscles connecting the scapula to the humerus, as well as in many muscles of the fore and hind extremities and elsewhere, the tendinous structure will be found chiefly arranged in the three following ways:—First, As in the antea and postea spinatus, or subscapularis, &c., there is a dense expansion covering a greater part of the muscles externally, and frequently entering more or less into the muscular substance. This tendinous tissue proceeds from the circumferent points of the origin of the muscles to be united with their tendons of insertion. Second, In the inner substance of the muscles there are sets of tendinous fibres uniting with muscular ones, of which the tendinous are the continuations. Third, Other sets of fibres which, as Mr. Mayhew states, are found passing in "direct unbroken" lines along the muscles from bone to bone, to which they are attached, and forming the "ligaments of the joints." Although this description of the tendinous fibres may not be given in veterinary anatomical works, and although it is the one I am in the habit of adopting, still I should have hesitated to have concluded that the "structures" and arrangement had "been hitherto unobserved" by others.

In attaching deserved importance to the last-mentioned arrangement, I think the author of the essay attaches too little to the former. We cannot doubt that tendon passing direct from bone to bone does, in virtue of its physical power, contribute in a most material degree towards preserving from fatigue, stress, or injury, muscular fibre passing in the same direction; but we are not to overlook the importance of the dense external sheath in not only promoting the same object, but in preserving the muscle and tendon internally in the most advantageous position for executing *their* functions. Nor are we to forget that even voluntary muscles possess a certain degree of contractile power, the exercise of which is continual, and does not induce fatigue. In other words, they

possess a power inherent in themselves and independent of the will. This is exemplified in cases of fractured and dislocated bones, when, in consequence of a change of the opposing force, the most moveable part of the bone is, by the muscles connected with it, drawn towards the least moveable portion, and, although forcibly, yet without voluntary effort. Surely, this property will not be wanting in connexion with those fibres which originate, as muscular, from the scapula, and become inserted by tendon into the humerus or elsewhere.

In fact, when, as takes place in the affection called "shoulder slip," there is wasting of the muscular substance covering the dorsum scapulæ, we find the action of the shoulder joint so interfered with, that the scapula and humerus, moving on each other, present a peculiar outward rolling action, that takes place when weight comes immediately on the articulation they form; and although this is a "shoulder lameness," attended with less apparent pain than some others, complete recovery only takes place when the wasted parts are restored; and shewing still further the use of this muscular fibre even in a standing position, the same peculiar symptoms exist (if weight comes upon the joint), though, of course, in a less degree, than when the horse is in action. "Shoulder lameness," though *often* occurring in "the parts that are the ligaments of the joint," *is not confined to them*, and the symptoms differ accordingly as the synovial and cartilaginous "parts" are affected internally, as the substances of the muscles on the dorsum of the scapula, or tendons near the shoulder joint are externally involved, or as the flexor brachii, with its fibro-cartilaginous groove and bursa, is more especially the seat of disease. Ulceration of the articular cartilage and synovial membrane between the scapula and humerus is denoted by symptoms very different to those existing when corresponding structures between the flexor brachii and the anterior part of the head of the humerus are affected by ulceration, or when the tendinous structure of the flexor brachii is sprained. The relation of these tissues to the shoulder joint, the functions which they actively and passively perform in connexion therewith, the nature of the various diseases and injuries to which they are liable, the symptoms denoting the *various kinds* of "shoulder lameness," and the varieties of its situation, have so long been described by Professor Dick, in his lectures at the Edinburgh Veterinary College, that I am surprised Mr. Mayhew should consider the anatomy and physiology of the parts described by him as new, and still more do I wonder that, with reference to their diseases, he has "nothing positive to advance."

Another powerful means of enabling the horse to rest and sleep standing, and which Mr. Mayhew passes by in his anxiety to

award the tendinous fibre that share of importance which he seems to think has not hitherto been ascribed to it, is the following:—some of the ginglymoid joints of the fore and hind extremities, in consequence of their conformation, are disposed to assume a state of extreme flexion or extension; and this extreme in either direction is not entirely dependent upon muscular action either for its full promotion or maintenance. The state of flexion is that into which they are brought either under active movement, or by the recumbent posture, and is imitated in the dead limb by separating from it all the muscles and tendons, leaving entire the lateral ligaments of the hock or elbow joints. Then bring the anterior surfaces of the humerus and radius, or tibia and large metatarsal bone, towards each other by flexing the elbow or hock, and, after the flexing power has brought the bones some way in this direction—after they have passed the medium between flexion and extension—they will, without any farther application of the same force, suddenly jerk into a state of the *utmost flexion*—a state which exists when the horse is leaping, as well as when he is in a recumbent posture. The state of extension, on the other hand, is that more especially found when the horse is standing; and the tendency of the elbow or hock joints to attain this may be seen by bending back the bones alluded to, when, having passed again the medium between flexion and extension, they will spring into a state of the *greatest extension*. Flexion and extension of one joint are so materially dependent upon corresponding actions of other joints in the same limb, that, if in addition to retaining the lateral ligaments of the elbow, we preserve all the bones of the extremity attached to each other, and retain the tendinous structure of the flexor brachii from its origin to its insertion into the head of the radius, with its continuation along the extensor magnus, preserving at the same time, all other tendinous and ligamentous structures in connexion with the limb, and remove, as far as possible, all muscular ones, we find, on placing the foot on the ground in a standing position, that weight applied so as to fall through the scapula and humerus upon the bony pillar formed by the radius, ulna, carpus, and metacarpus upon the foot will not cause flexion, but will be supported.

The same thing is exemplified in the hind extremity, by preserving entire the ligaments of the limb, and the tendons of the gastrocnemii, flexor metatarsi, and extensor pedis muscles. Weight, then, applied vertically from the os femoris to the foot will not produce flexion of the foot. The joints are thus retained in a state of flexion or extension, as the case may be, without muscular power being applied directly to them, and the state of their passive extension, (that position of the extremities when a horse is standing) should surely be considered worthy of *some* notice, in endeavour-

ing to account for the property, which the horse so remarkably possesses of resting without necessarily seeking the recumbent posture.

Mr. Mayhew's remarks on the way in which he accounts for the obviation of traction, and its fatiguing effects, from the extensors of the fore leg during a recumbent posture, are judicious, and go to shew that the flexion and extension of one joint are dependent, as just stated, upon corresponding actions taking place in other articulations of the same limb. I am inclined to believe that a certain elongation (limited it may be) of muscle is permitted without inducing fatigue. Although muscles possess the power of active contraction, they do not appear to possess that of active elongation. When the flexors of a limb have ceased to act, their subsequent power of elongation seems to depend not upon themselves, but upon their antagonists the extensors, and *vice versâ*. It is difficult to say *how far* this lengthening in either case *may or may not* be carried; but nature would hardly, we think, so constitute an important tissue, destined for performing actions requiring every variation of energy, as to confine that tissue to one definite limit of extensibility; for then, were that limit in the slightest degree exceeded, prejudicial consequences would ensue.

May not the tonic power possessed by voluntary muscle—a power independent of that resulting from the immediate exercise of volition—be, like volitional power, to some extent capable of adjusting itself according to circumstances, in muscles for the time being not distinctly obeying the commands of the will?

I have next a few remarks to make with reference to Mr. Mayhew's observations on certain "ligamentous bands," connected with the flexor tendons of the fore leg. Although a description of these "bands" is not to be found in our text books on veterinary anatomy, still they force themselves on the observation of every one who dissects the fore extremity of the horse with ordinary care. They are formed, as described by the author of the essay, one above the knee, proceeding from the posterior and inferior part of the radius; the other below the knee, proceeding from the lower row of carpal bones and posterior surface at the superior extremity of the metacarpal bones, both of these bands pass inferiorly to be attached to the flexor tendons. Contained between them is a large synovial bursa, over which the flexors of the foot and pastern pass to their insertions. From the situation and connexions of the "structures" alluded to, the idea could scarcely fail to follow, that they were placed here in order to protect the muscular fibre from shocks and injuries to which it would be liable, had we no such provision existing. Professor Dick, in his lectures, when speaking of the anatomy and uses of various parts of the fore leg, to-

gether with the diseases to which these component parts are subject, has invariably noticed and attached much functional importance to these "ligamentous bands;" and, besides recognising the uses which Mr. Mayhew attaches to them, he points out their functions as more extensive than merely those which Mr. Mayhew seems to think *himself the first* to describe*. Professor Dick also, *with* "actual experience" to back "*his* assertions," has long ago described the injuries and diseases to which they are liable.

The inferior of these "ligamentous bands" Professor Dick calls the metacarpal ligament, and has uniformly described *it* as being the seat of injury termed "sprung tendon," "sprain," or "clap of the back sinews," an affection commonly said by veterinary authors to be situated in the sheath enveloping the flexor tendons themselves: but *he has never* considered "sprung tendon" to be, as Mr. Mayhew thinks it is "more generally received" to be, a "sprain of the suspensory ligament." The symptoms existing under sprain of the tendon, when contrasted with those existing under sprain of the suspensory ligament, are dissimilar, and will not bear comparison in many respects. Various *parts* of the flexor tendons, as well as of the suspensory ligament, are liable to sprain, some more so, however, than others; and, while the *common* seat of "sprained tendon" is in the metacarpal ligament, the seat of sprain of the suspensory ligament is generally not only differently situated, but the affection is denoted by different symptoms.

I should have been very much surprised if Mr. Mayhew *had not upon dissection found* a case confirming the opinion he had expressed, as to the metacarpal ligament being the seat of disease, the consequence of inflammation and sprain. Such cases are particularly abundant among some kinds of horses, and offer varieties of morbid appearances. In some, the tendons, sheaths, and ligaments, are united into one enlarged mass, not unfrequently containing patches of bony deposit. In others the metacarpal ligament is more exclusively the seat of disease; and when it has been repeatedly affected with sprain, and sometimes from other causes, there is an effusion of adventitious substances among the fibres composing it; so that they become thrown out of the former straight line of their direction, which induces, first, a straightening of the pastern; next, a knuckling over of the fetlock, and, further advancing, causes permanent and rigid flexion of the foot.

* In a paper written by him, in the Quarterly Journal of Agriculture, fifteen years ago (May 1831), Professor Dick, in giving a diagram to illustrate his ideas with reference to certain structures connected with the fore and hind leg of the horse, figures both the "ligamentous bands" alluded to, and makes special mention of the inferior one.

The superior of these "ligamentous bands" has also long been described by Professor Dick as being liable to sprain from various causes; attendant upon which, in addition to other symptoms distinctly characterising it, there is, in most cases, a distention of the bursa with which the "ligamentous band is connected." This distention being observable on each side of the limb above the knee, he calls it thoroughpin at the knee.

There are other arrangements of "ligamentous bands" to be found in the fore leg, descriptions of which we shall vainly seek for in works on veterinary anatomy, and the diseases of which we shall as vainly seek in works on veterinary pathology and surgery; yet, although such descriptions are wanting, I cannot conceive that either the one or the other have "been hitherto unobserved;" but the "structures" Mr. Mayhew has described as existing near the shoulder and knee are so *frequently diseased*, that I do indeed wonder instead of "hazarding" assertions respecting them, he has "nothing positive to advance." But if the "structures" themselves are so recently known to him, they surely have not "*been hitherto unobserved*" by *other teachers* at the London Veterinary College; yet, as the obvious inference is the contrary, I feel curious to know how the various symptoms indicating lameness in the fore leg have been "hitherto" accounted for, if these structures in which they exist have indeed "been hitherto unobserved."

Edinburgh Veterinary College,
11 April, 1846.

A PLAN FOR ESTABLISHING A SCHOOL OF ANIMAL ANATOMY OF LONDON,

TO PROVIDE PROPER ACCOMMODATION, IN THE CHARACTER OF A THEATRE, FOR THE EXAMINATION OF HORSES AND CATTLE HAVING DIED FROM PHYSIOLOGICAL DISEASE OR OTHER CAUSES.

THE purpose would be answered by the erection of a substantial building of wood, inclosing a spacious platform capable of suspending three horses at one time, with sufficient frames, joists, ropes, pullies, and apparatus for exhibiting animals in every posture, supplied with wells, vessels, and depositories for sections, organs, and specimens, with the most perfect drainage.

The interior to be fitted with circular or octagonal seats for spectators not engaged in dissection, with the most ample mechanical contrivances for the accommodation of students and artists employed in tracing and delineating disease and its diagnosis, and for taking notes of examinations.

This theatre to be annexed to or distinct from any veterinary college, vested in a body of physicians, surgeons, and veterinary practitioners, supported by the fees of students and the sessional payments of non-students or honorary members.

For securing the success of this institution, application should be made to the legislature for an act to the following effect, intituled "An Act for better preserving the Health of the Metropolis:"—

1st. In case of the death of horses or cows, notice thereof should be given within ——— hours to the office of this school.

2dly. That an officer appointed for the purpose should, within ——— hours, give directions for their removal to its theatre, or elsewhere.

3dly. Penalty for not giving such notice.

4thly. The like for neglect of removal.

With other suitable clauses the nature of the case requires, to secure dead animals being got out of the way with the utmost despatch, and for general management of the institution.

Remarks.

1. Veterinary surgeons would feel an interest in having efficient examinations made, and would be induced to send subjects for the purpose of dissection to satisfy themselves of disease, its origin, progress, and termination, and of testing their form of treatment.

2. Instances would occur where gentlemen would pay a liberal fee for post-mortem inquiry in order to ascertain the cause of death of valuable horses.

3. Cases might arise that would greatly assist the solution of legal disputes, where a court of justice would have the testimony of an impartial tribunal in describing disease or latent cause of death.

4. On the score of public policy, it would tend to the encouragement of superior horses being used by the public, cheap cattle being frequently employed for the sake of a supposed economy, that in case of accident or death the pecuniary loss may be small: whereas sound acquirement in veterinary surgical skill, and greater confidence prevailing in its efficacy, individuals would be encouraged to possess superior animals, and employ the profession more freely. A very general impression has hitherto existed, that by using low-priced horses their loss would be less felt, and, therefore, choice is often made of cattle that are designedly not intended to pay for cure of disaster or mischance: hence there follows a discouragement to breed and care, and better horses are disregarded; while, in other cases, owners risk their own remedies instead of seeking regular advice. This is a system of serious impolicy, of very negative economy, for no man can calculate on the profit of employ-

ing fit horses, and the balance in his favour of doing them justice. It would be worth considering whether, to prevent this evil, it would not answer to connect with this school a sort of dispensary for curing the poor man's cattle at a greatly reduced rate of charge, or gratis, under proper regulations in necessitous cases.

5. At present there is not, in public or private study of the veterinary art, a sufficiently organized supply of subjects for anatomy and lecture, while resorting to the destruction of asses is wholly indefensible on principles of humanity, as well as totally inadequate to the purposes of examination. In the absence of a cause of death, there is nothing to discover of specific disease—no contrast in condition, nor sufficient variety in the appearances of nature to be exhibited, and therefore no deductions to be made in the class of remedies for dislocations or in morbid cases, so that the student might as well be employed at the abattoir of the butcher or knacker, where he would have the chance of seeing different specimens of condition in cattle, as well as some advantage in dissection.

6. By good management in arrangement and details there would be various sources of profit belonging to the school, especially from the connexion of animal chemistry with agriculture and its adjuncts.

Lastly: It is worthy of being considered how far a class of comparative animal anatomy should be introduced, which, at least, would possess the advantage of raising the profession to a higher grade of acquirement, and to a popular standard of usefulness, if not of distinction, in the advancing sciences of the age.

X.

CASE OF PUERPERAL FEVER TERMINATING FATALLY IN TWELVE HOURS.

By T. D. Gregory, *M.R.C.V.S., Bideford, North Devon.*

On Wednesday last, at eight A.M., I was requested to visit a cow that the messenger informed me had fallen, and was unable to rise. On my arriving at the residence of the owner, I found the patient to be a well-bred Guernsey, about ten years old, and said to be an excellent milker. She had calved on the Monday previous, and was treated in the usual way. No untoward symptom was discovered until the same morning (Wednesday), when the servant, after allowing the calf to suck, fancied she staggered somewhat, and did not appear to notice the calf, of which she informed her

master, who had her (the cow) removed to a more commodious shed. On reaching it she immediately fell. The owner bled her, and then sent for me. I discovered her lying on her belly, but rather inclined to the right side, her head thrown back—breathing stertorous—pulse quickened and irregular—extremities cold—eyes amaurotic. On raising her head, the lower maxilla hung pendulous. On administering medicine, I found the muscles of deglutition powerless. I punctured her with a lancet in several places, and passed my finger round the tunica conjunctiva, without her evincing any pain. In fact, voluntary motion and sensation were entirely suspended. I, of course, made up my mind for the worst. I gave sulph. magnesiæ ℔jss. pulv. zingib. ℥j; applied a powerful counter-irritant to the spine, and injected frequently saline enemas. I remained with her until ten o'clock, when I was obliged to leave to visit my other patients. Saw her again at two P.M.—found her in the same state of insensibility—medicine not operated, no impression produced by counter-irritant—rumen much distended with gas, which I punctured, allowing the canula to remain. Introduced through it another dose of purgative medicine, with stimulants—administered a terebinthinate enema—tried boiling water to the spine, which produced not the slightest effect, after which I applied a cataplasm, composed of sinapis et ol. terebinth., and ordered injections to be repeated. I then left her. Visited again at seven P.M.—no improvement—medicine not operated—irritant produced no effect—repeated enema. On rising from doing that, and approaching her head, I found she had ceased to breathe.

I expressed a wish to make a post-mortem, and on the next day attended for that purpose, but was disappointed. In consequence of the owner not liking the effluvia that was given off from the body, he had ordered her to be buried. He informed me that the man whom he employed was a butcher, that he had examined her, and declared he never saw a more healthy animal opened, to his recollection.

As it regards the nature of this too fatal malady, I perfectly agree with Professor Simonds, of the Veterinary College, when he says that he believes it to be more of the apoplectic character than otherwise, and accordingly proposes to call it "parturient apoplexy." The suddenness of its attack, and the absence of all febrile symptoms in this case, as well as very many others, is a good evidence in his favour. The primary causes that are in operation to produce it, we are, I believe, not conversant with. It usually occurs in well-bred animals, those that secrete an unusual quantity of milk, and are in good condition; but why it should be principally confined to the cow, I am at a loss to venture an opinion.

I imagine (and of course it is imaginary) that diseased action is set up, either from pressure or otherwise, on the nerves of the uterus

during parturition, through the influence of which nerves it is conveyed to the brain and spinal marrow. The vascular system in its turn becoming excited, congestion or effusion takes place in the cranial cavity, causing pressure on the brain, and thereby producing the comatose symptoms.

I trust that you will pardon my occupying so much space in your valuable Journal, should you think the case worth recording.

P.S.—I have been informed, since I commenced these remarks, that a farrier (quack) in the neighbourhood, who has usurped the name of veterinary surgeon, has been industriously circulating a report that the animal above alluded to died from maltreatment.

I am, &c.

STATEMENT OF THE CASES OF DISEASE AMONG DOMESTICATED ANIMALS OCCURRING AT THE EDINBURGH VETERINARY COLLEGE,

From the 1st to the 31st of March, inclusive.

By Professor Dick.

Disease.	Number of Cases.			Deaths.		
	Horses.	Neat Cattle.	Dogs.	Horses.	Neat Cattle.	Dogs.
Abscess, in various parts ...	1	...	...	1	...	...
Aorta, Rupture of....	1	...	...	1	...	...
Brain, Diseases of.....	3	...	1	...	...	...
Catarrh and Influenza.....	8	...	...	...	...	...
Chronic Cough.....	2	...	...	...	...	...
Colic.....	19	...	...	...	...	..
Constitutional Debility	5	...	...	...	...	...
Diabetes.....	2	...	...	...	..	...
Distemper	...	...	5	..	...	2
Diarrhœa	1	...	...	...	...	...
Emphysema	1	...	...	...	...	...
Enteritis	1	...	...	...	...	...
Erysipelas	1	...	...	...	...	...
Eyes, Diseases and Injuries of	4	...	...	...	...	...
Examinations as to Soundness.....	14	...	...	...	...	...
Farcy	1	...	...	...	...	...
Farcy and Glanders.....	3	...	...	3	...	..
Feet, Wounds and Bruises of,	17	...	...	...	...	...
Corns in.....	5	...	...	...	...	...
Laminitis	3	...	...	...	...	...
Navicular Disease in.....	5	...	...	...	...	...
	97	0	6	5	0	2

Disease.	Number of Cases. Horses.	Neat Cattle.	Dogs.	Deaths. Horses.	Neat Cattle.	Dogs.
Disease brought forward	97	0	6	5	0	2
Pumiced	1	...	...	..	..	...
Seedy Toe in	1	...	...	...	...	...
Quittor in	5	...	...	...	...	...
Ringbone	2	...	...	...	...	...
Thrush in	1	..	...	...	...	...
Fistulæ and Ulcers	1	...	...	...	...	...
Fractures of Bones	2	...	...	...	...	...
Grease	2	...	...	...	...	...
Hæmaturia	2	...	...	...	...	...
Heart, Disease of	2	...	...	...	...	...
Indigestion	4	1	1	...	...	...
Ischuria	2	...	...	...	...	...
Lameness in Hip	6	...	...	...	...	...
Ditto in Shoulder	2	...	...	...	...	...
Ditto in Stifle	2	..	...	...	...	...
Ditto in Knee	5	...	...	...	...	...
Ditto in Pastern	6	...	...	...	...	...
Ditto in Fetlock	7	...	...	...	...	...
Myelitis	1	...	...	1	...	...
Palsy	1	...	...	1	...	...
Phymosis	1	...	...	...	...	...
Pleurisy, Pneumonia, and Bronchitis	4	11	...	...	6	...
Skin, Diseases of	6	...	1	...	...	...
Strangles	1	...	...	...	...	...
Spavin, with Lameness	5	...	...	...	...	...
Splint, with ditto	2	...	...	...	...	...
Spine, Injury of	1	..	...	1	...	...
Sprains of Tendons, &c.	11	...	...	...	...	...
Teeth, Diseases of	5	...	...	...	...	...
Thrush in Mouth	2	...	...	...	..	...
Trachea, partial Obstruction of	1	..	...	...	...	...
Tumours	1	...	...	...	...	...
Weed	3	...	...	...	...	...
Wounds and Bruises, excepting in Feet	11	...	1	1	...	...
	206	12	9	9	6	2

General Abstract.

Cases among Horses	206	Deaths among Horses	9
„ Neat Cattle	12	„ Neat Cattle	6
„ Dogs	9	„ Dogs	2
„ Not included above: Pig, Epilepsy	1	„ Pig	1
„ Total number	228	„ Deaths	18

It will be observed that the number of cases during March has been unusually small, when compared with the corresponding month last year, or when contrasted with the general run of cases.

The cause of this diminution seems to be the remarkable mildness of the weather during the month, or, at least, that is, perhaps, the most probable cause that can be suggested. The falling off in number is to be found in those diseases of the air-passages more especially observed during the prevalence of cold east or north-easterly winds, which, during the past month, have not prevailed to much extent. This circumstance suggests the advantage to be derived from extended statistical reports, a comparison whereof tends much to give clear views of some causes of diseases which are often involved in apparent mystery; and hence, to get quit of the difficulty of tracing diseases to their real causes, we often attempt to explain their prevalence at certain times, by ascribing their occurrence to contagion or infection when much obscurity exists.

The case of rupture of the aorta occurred in a horse belonging to a carter, that had been under treatment a few days previously to the 30th March for quittor of an aggravated kind, and extensive sloughing was at that time taking place. The disease in the foot had created considerable constitutional disturbance; and the pain and lameness were so great, that, instead of allowing him to be brought daily to be dressed, his case was given in charge of some of the more advanced students to treat, and report: indeed, as he was about a mile distant, and being almost unable to walk, it was necessary to attend on him at his own stable. On going for this purpose on the 30th March, the horse was found dead, although on the previous day he did not appear at all worse than usual. The body was immediately examined, as, from the suddenness of the death, it was inferred that rupture of some bloodvessel or vascular organ had taken place. On laying open the abdomen, no appearance of this or any other morbid condition was detected; and, on opening the thorax, the lungs with their coverings and attachments were entire and healthy, but the pericardium immediately presented itself as being the seat of mischief. The cavity formed by this membrane was filled with arterial blood: it was, therefore, together with the heart, removed carefully from the thorax, and brought here for more careful examination, and that the students might see and have the nature of the case explained to them. The incision that had been made to separate the pericardium from the sternum, and to evacuate the blood, shewed that rupture of the aorta had taken place. On examining the interior of the heart, the bicuspid and tricuspid valves were found much indurated. The semilunar valves, but more especially the aortic ones, were also considerably thickened at their free margins; and that part of the general cavity of the aorta in which sinuses for these valves are formed, which is ordinarily the thin-

nest part of the vessel, appeared dilated more than natural, when compared with the caliber of the channel above the sinuses and below them. In that part of the aorta which contains these sinuses, and which is more especially in connexion with the cavity of the pericardium, a rupture of one inch and a quarter was found, extending in the same direction as the circular fibres of the middle coat. The centre of the rupture internally corresponded with the junction of the angles of two semilunar valves. The inner serous coat appeared to have given way first, and the fibrous and the cellular one afterwards; for between the cellular and fibrous one there was a large quantity of extravasated blood.

It is worthy of remark, that many cases of sudden death among horses arise from this cause, the position and form of the rupture in such being nearly similar. The rupture appears to be occasioned by the animal making a sudden or powerful effort, such as a spring to gain his feet: perhaps in this case attended with a violent struggle, from only having three feet which he could properly use, or he might have, from the same cause, slipped in rising. Any instantaneous and violent effort may, however, cause the accident, and it may also occasionally take place from long continued exertion, especially where there has been chronic disease existing. On examining the foot in the abovementioned case, a portion of cartilage nearly detached was found deeply situated in one of the sinuses opening externally.

Among the cases of sprain, one may be noticed, involving the flexor metatarsi and extensor pedis posticus muscles, as being of a somewhat rare and interesting nature. A black horse, the property of a carter at Hails Quarry, commenced kicking violently, and got his near hind leg over the front of a low stone-cart in which he was working. By the violent attempts he had used to extricate himself, the leg seemed seriously injured, without shewing externally much evidence of such being the case. There was very little swelling, no wound or loss of hair, but when made to walk the horse was incapable of flexing the hock. The leg, when raised from the ground, hung loose and dangling, as if the tibia had been fractured. The tendo achilles became quite relaxed, as if it had been torn from its superior attachment. An old pupil had been called to attend the case, but from the rare occurrence of instances of this kind, and its nature being, consequently, rather obscure to him, he wished my advice. It was about three miles distant, but, being rare, many of the students went and saw it. On examining the lame limb, I found there was a slight degree of swelling, with pain along the greater part of the flexor metatarsi, which had been injured by the strained extension of the limb backwards, while fixed over the front of the cart, until it had become powerless, and

for a time useless; hence the swinging and dangling of the leg, as if paralyzed, when raised from the ground by the other muscles. When the leg was brought slowly forward, and placed on the ground, the horse could apparently stand upon it almost as firmly, to appearance, as if nothing had been the matter with it. He could also move backwards with ease. The treatment was simple, and chiefly consisted in the application of fomentations of warm water, until the pain was allayed. He is now getting regular exercise preparatory to being put to work, having almost recovered.

The case of partial obstruction of the trachea occurred in a bay horse, that was brought here on the forenoon of March 23d, and, from the intense difficulty of breathing then existing, it seemed likely that tracheotomy would require to be performed. The man in care of the horse said that, when feeding in the morning on some dry provender, he suddenly stopped eating, and appeared, by the coughing that came on, to have got something in his windpipe. By the time he arrived here the cough had entirely subsided, and was followed by intense difficulty of breathing, which was most observable during inspiration, and was accompanied by a wheezing and loud roaring noise, with so much distress that a profuse perspiration covered the body. The fauces, pharynx, epiglottis, and all parts posterior to the mouth, within reach of the hand, were examined, in order to ascertain whether any obstructing body was situated there; but as nothing could be detected, and as the cough had subsided, it seemed probable that the irritating substance had passed into the upper part of the trachea. Rather than have recourse to tracheotomy at once, and as the symptoms, although intense, did not forbid a trial of other means, at least for a short time, some of the students were directed to make him inhale the vapour of warm water, and apply fomentations to his throat. Although this was done for awhile without apparent benefit, still, as the symptoms did not increase in severity, the fomentations and fumigations were persevered in. Friction, with pressure to the throat from below upwards, was also occasionally applied. Acts of coughing were sometimes induced, and it was observed that mitigation of the symptoms followed them. A little hay was laid on the ground before him, when, after lowering his head towards it, as if smelling for some time, he began to eat. A copious discharge of mucus, mixed with bran, soon after took place, and, in a short time, complete relief resulted. The recovery was so immediate, that the students having gone in to lecture, expecting to see the trachea opened on their return, found instead of this, the horse quite well. This case will shew that, in those instances where obstruction of the upper air-passages arises from or depends on temporary causes, tracheotomy should not be hastily re-

sorted to; for, although the operation is easily performed, and is attended with little danger, still as contraction of the trachea about the wound often follows, which may be productive of future inconvenience, if not require a constant use of the tube, the operation ought not to be undertaken, if it can be avoided. The horse in which tracheotomy was performed here in February 1845 is at daily work, and in high condition; but it has been found necessary to continue the use of the tube, although several trials have been made to dispense with it.

The case of erysipelas occurred in a cart mare, the property of a poor man, who brought her here, exhibiting the following symptoms:—There was great heat and pain in the skin of the head, but more especially in that of the lips, attended with considerable engorgement of the subcutaneous cellular tissue, which caused the head to appear much increased in size. The swelling was dense, but in some places pitted under pressure. A swelling of corresponding character existed along the inferior parts of the trunk, and extended from the sternum to the pubis, hanging down to the extent of four inches, and from side to side measuring eighteen inches. The extremities were also somewhat affected, especially the off hind leg, in which the skin was particularly hot and painful. The pulse was of an irritable rather than inflammatory character; the appetite was variable, the breathing quickened, and there was so much debility present, that the animal appeared scarcely able to move. From the owner's account of the mare, she was stated to have been unwell for some time before being brought here; and so far as could be learned from him, as to the symptoms existing, her former illness appeared to have been pleurisy. The symptoms of erysipelas had more recently made their appearance. Mild laxative medicine was given in the first instance, followed by antimonials and nitre; afterwards tonics and diuretics, as the case appeared to require. The mare has now recovered.

The case of myelitis occurred in a black cart-horse, the property of a carter at Leith. It was stated that the symptoms first observed, on going into the stable in the morning, were dulness and a degree of stupor. He was considered quite well on the previous night. Soon after he was noticed to be unwell he fell down, and was unable to rise. The farrier was sent for, who bled him, and administered some laxative medicine, and he said that the pulse was quick and strong. I was requested to see him during the day, and found him lying stretched out—pulse 90, and respiration much increased in frequency. Although at times there was a degree of coma, there was never an entire absence of consciousness. He could raise his head, and took some food, especially boiled turnips and hay. He was twice raised with slings and pulleys, but,

being unable to steady or assist himself in any way, it was found necessary to lay him down again, in which position he remained without tossing himself much about, although sensation and power of motion were not entirely destroyed. He was repeatedly bled, laxative medicine was administered, the head was kept cool, and the region of the spine stimulated externally, but he died after three days' illness. The body was carefully examined after death. The stomach, intestines and other abdominal and pelvic viscera were found perfectly healthy. The lungs were congested, but apparently had recently become so. The heart internally and externally, with the pericardium, were free from disease. On exposing the brain, considerable congestion of the cerebral pia mater was evident, yet there was not any tangible appearance of inflammation in the nervous substance or its envelopes, contained within the cranial cavity. On opening the spinal canal, the membranes, as well as the substance of the cord, were found intensely inflamed. The dura mater and pia mater were almost black in the lumbar region, whilst the proper structures of the cord itself were also of a deep red colour, and the medullary portion was so much softened that its fibrous composition could with difficulty be distinguished.

SOMETHING NEW IN ANIMAL CHEMISTRY.

To the Editors of "The Veterinarian."

WILL you allow me to mention—as the fact may be interesting to those members of the veterinary profession who devote attention to animal chemistry—a hitherto unsuspected ingredient to exist alike in the blood and the milk of the cow? These fluids were evaporated to dryness, burned in a large open crucible, and the resulting ash boiled with muriatic acid. The filtered liquid was then evaporated to dryness, heated to low redness, and washed with a small quantity of distilled water. The insoluble residue was transferred to a platina crucible, moistened with the strongest oil of vitriol, and warmed, while a square of glass, covered with bees' wax, through which characters were traced with a small pointed rod, was placed over the crucible as a cover.

I am repeating these experiments at present with the blood of the horse and with that of man, in both of which I expect to find fluorine. That element has hitherto been found only in the bones of animals and in human urine. It may now be expected to occur in all the tissues of all animals, although but in a small quantity.

Those who wish to repeat successfully the experiments referred to above, must make use of several pints, at least, of blood and of milk.

Any gentleman, curious in the matter, who will visit my laboratory, 24, Brown-square, Edinburgh, can see the etched pieces of glass.

A paper containing the results of a lengthened inquiry as to the accumulation of fluorine will appear in the coming volume of the Transactions of the Royal Society of Edinburgh.

I remain, &c., yours truly,

GEORGE WILSON, M.D. F.R.S.E.

24, Society, Brown Square, April 17th, 1846.

Extracts from Domestic and Foreign Journals, Veterinary, Medical, and Agricultural.

SARCOMA OF THE DURA MATER IN A COW.

By HERR HILDACH, *V.S. to the District of Quaritz.*

HERR G—, of G—, requested my advice respecting a three-year old cow which he had purchased some two years previously, and that, by all account, had never eaten properly while out at grass, apparently because it was painful to hold the head down low enough to graze; but when in the stable she always devoured her full allowance of fodder. It gave good milk, but never looked sleek and smooth, nor did it change its coat in the spring.

On the 27th of February it had suddenly fallen down, without having betrayed any previous symptoms of disease: it kicked violently, and seemed to have the cramp. As soon as the head was raised, the animal recovered at once, ate and drank well, and appeared lively and in health until the 1st of March, when a second fit similar to the first seized it. For four-and-twenty hours it lay senseless, and then got up, and seemed tolerably well and lively until the 3d, when the exacerbation came on for the third and last time.

On the 4th I was called in, and found the animal standing, with

its head hung down, its eyes fixed, insensible to outward objects, the pulse feeble, and at 40; the palpitations of the heart perceptible; the breathing, dunging, and mucous membranes, natural; and the temperature of the ears, forehead, and roots of the horns, at about their usual height.

Deeming this attack to be a *congestio passiva* of the brain, I bled the animal, passed two setons through the neck, and gave salts internally.

Four-and-twenty hours afterwards there was no symptom of amendment: the animal continued on its feet; the head hung down, silent, and insensible, excepting now and then, when, for a few moments, the teeth ceased to grind together, and it drank a mouthful or two of thin bran water, gaped, shook and stretched itself, and then relapsed into its former silent, motionless apathy.

On the 23d of March the animal was destroyed. I carefully examined the belly and chest, but found no trace of disease, or any alteration, excepting in the intestinal canals, which, from the long fasting of the animal, were much contracted. After carefully taking off the top of the skull I perceived a sarcoma, of about two inches in diameter, situated immediately in the front, between and upon the two hemispheres of the large brain: it was very firm, and of a fibrous structure. The brain itself did not appear to have undergone any alteration, and in the ventricles of the brain was found the usual quantity of serous fluid.

Magazin für die Gesammte Thierheilkunde, 1845, p. 331.

Account of a Disease in two Swine, and an Operation performed on them.

By Herr Volk, *V.S., Wernburg.*

Some little time ago I was sent for by Herr Fischer, of Klein-Dämbach, to look at two three-quarters-of-a-year-old pigs, and to say whether or not any thing could be done for them. I found these animals very much blown—the rectum closed up—the pulse and palpitations of the heart rapid—the ears and snout cold—the breathing very much accelerated, and no appetite. Pressure on the flanks appeared to produce great pain, and the animals groaned loudly.

On making some inquiries, in order to be able better to form my opinion as to the nature of the disease, I was informed by

Mrs. Fischer that these pigs had always been excessively greedy, and eaten an immense quantity; therefore she had made a great deal of barley-meal porridge for them. In all probability this food had often been made with water that did not boil, and, consequently, it was not wholesome, and would not digest. Hence had arisen constipation, and the animals, in straining themselves to dung, had forced out a portion of the large intestine nearly four inches in length. Seeing this, the food had been changed. The protruded piece of intestine mortified and fell off, and gradually the rectum closed up; and now for four days it had been so closed that the animals were quite unable to void their excrements.

On a more strict examination, I found that the opening was completely closed by the contractor muscle of the rectum and the remaining portions of the protruded intestine, which had dried up, and resembled warts, so hard were they. I could not even introduce a small probe into the rectum; and therefore I cut through these hard formations and the impeding contractor muscle thus X, making an incision each way of an inch in length. Then from each of the four lappets thus formed I cut off about a quarter of an inch, and an artificial rectum was thus formed, and through it a large quantity of bad-smelling air, and thin, yellow, stinking excrement was instantly voided, and continued to be so for nearly half an hour, after which the animals ceased to be blown, and appeared more lively and free from pain. The wound bled very freely; nor did I attempt to stop the bleeding for some time, deeming it beneficial in allaying the inflammation of the intestines, which was evidently coming on. A few clysters of cold water and wine vinegar soon put a stop to it. When I considered that the animals had bled enough, and the bleeding was once stopped, I gave clysters consisting of a decoction of linseed, fir-tree bark, and wormwood.

Into their food, which I caused to be composed of clover, potatoes, and linseed scalded with boiling water, I put a little saltpetre. In about fourteen days I had the satisfaction of seeing the animals perfectly restored to health. It was, however, necessary from time to time to rub the opening of the rectum with linseed oil, in order to soften and cleanse it, otherwise the dung which clung about it would have irritated it, and produced inflammation.

I had frequent opportunities afterwards of seeing these two patients, and I remarked that, whenever they dunged, the rectum did not close up so quickly as in the natural state it would have done.

Magazin für die Gesammte Thierheilkunde, 1845, p. 329.

On the Treatment of Fistula of the Parotid Duct in the Horse, followed by practical Considerations relative to the Means of Cure employed in Human Surgery.

By M. Reynal, *First V.S. to the Sixth Lancers.*

"Sil est vrai que pour se constituer, la médecine vétérinaire a en récours a la médecine humaine, si journellement encore elle lui fait de nombreux emprunts, elle lui a toujours offert et livré en rétour, le fruit de ses observations, de ses réchêrches, et de ses expériences."—*Barthélemy.*

Preliminary Observations.

In the course of our practice we have observed numerous cases of fistula of the parotid duct, all of which, without exception, have been cured by means of the simple treatment that we have employed.

Not being satisfied with what has been said and written respecting the cure and consequences of the lesions, we made known some of our observations to the *concours* of the Royal and Central Agricultural Society in the year 1841. They were reported by M. Barthèlemy, sen. Since that period we have collected new facts and tried fresh experiments, which enable us to trace out an almost perfect history of the fistulous wounds of the parotid duct in the horse.

We solicit all the attention of the learned society to our treatment, which differs essentially from that hitherto employed in veterinary and human surgery. By subjecting it to some slight modifications, that would be necessary to admit of its application to human surgery, we feel convinced that it might be made to produce more certain, more prompt, and much less doubtful results than the surgical means now generally made use of; and we shall be fully recompensed if, while endeavouring to throw light on an obscure point in our own practice, we should succeed in improving an operation so beneficial in relieving human suffering.

Our essay will be divided into four parts:—

In the first, we shall cast a rapid glance over the works hitherto published on this subject.

In the second, and most important, we shall treat of fistulous wounds considered under the heads of causes, symptoms, progress, termination, and treatment.

In the third, we shall narrate some of the numerous cases we have met with, and the principal experiments we have made with the view of throwing light on this point of surgery.

And in the fourth and last, we shall endeavour to demonstrate the advantages which human medicine might derive from an adoption of the treatment we recommend.

CHAPTER I.

Historical Considerations relative to Lesions of the Parotid Duct in the Horse.

Fistulæ of the Stenonian duct do not appear to have been noticed in veterinary medicine before the year 1768. Lafosse, jun., then writes, for the first time, that wounds in this excretive canal cannot be cured*.

In his "Cours d'Hippiatrique," this same author, without expressing himself explicitly, seems, nevertheless, to infer that they are very serious, and rarely cured. He recommends that no treatment whatever should be employed, and, above all, the use of any sharp instrument avoided, which always aggravates the evil, and the wound simply kept clean, and washed with astringent lotions, which will eventually moderate the flow of salivat.

Vitet, and his cotemporaries, who were but so many servile copyists of Solleysel and Lafosse, recognize, with this learned hippiatrist, the *gravity* and the *incurability* of parotidean lesions. They advise that the evil consequences which they are likely to produce, should be averted by the application of a mixure composed of the white of an egg, alum, and vitriol, to the opening in the canal, which is to be maintained in its place by means of a compressive bandage‡.

M. Huzard, jun., professes nearly the same opinion as Lafosse, jun., respecting the importance of the fistula of the Sténonian duct, but differs from him as to the manner in which they should be combatted. According to this talented author, there are three ways of obtaining a cicatrization :

First, By tying or compressing the canal at an intermediate point between the gland and fistula.

Secondly, By provoking the formation of a dry scar by means of actual or potential cautery.

Thirdly, By perforating the cheek with a stylet, introduced through the fistula, and passing a small seton there, in order to prevent the artificial opening from closing up§.

In order to find more circumstantial facts relative to the progress, consequences, and treatment of fistula of the excretive canal of the parotid, we must pass on to 1825, the period at which M. Leblanc published an extraordinary case of cure by complete extirpation of of the parotid gland. After having given a detailed description of

* Guide du Maréchal, art. xxiii, 1768.
† Cours d'Hippiatrique, p. 238.
‡ Analyse de l'ouvrage de Vitel dans le Dictionnaire de Buchoz, p. 83.
§ Nosographie Vétérinaire, p. 128.

the manuel of this incredible operation*, this veterinarian lays it down as a principle,

First, That instances of cicatrization of the superior salivary canal are very rare.

Secondly, That the only certain means of stopping the flow of saliva consists in the removal of the organ which secretes it†.

Hurtrel d'Arboval, much less positive than M. Leblanc respecting the diagnostic of these lesions of the Stenonian duct, nevertheless believes that "cases frequently occur in which the fistulæ resist" compression, ligature, plugging, sutures, adhesion plasters, and the astringents generally recommended.

Under such circumstances this learned veterinary surgeon advised that atrophy of the parotid gland should be produced. In order to effect this, he, first of all, makes use of a peculiar compressive apparatus, consisting of a curved metallic wire applied vertically on either side of the organ, even to its deepest seated parts. The compression is effected by means of the ends of the wire, which extend over on the outside, and several twists of waxed wool which surround the isolated organ in all parts‡.

The danger of local gangrene compelled Hurtrel d'Arboval to renounce this peculiar method of compression. He then passed a cauterizing iron, heated to a white heat, over the uncovered parotid, until he had produced a scar of about two-thirds of an inch in thickness. After the fall of the first scab he provoked a fresh one by a second application of the cautery. This operation, equally bold as dangerous, effected the cure of the fistula *in the space of a few months.*

M. Vatel, in his "Eléments de Chirurgie," contents himself with describing the actual state of the question. Like his predecessors, he advises, when the fistula is recent, that the edges of the wound should be brought together by the means of adhesive agents, or a twisted suture; and, when it has existed for some time, that a ligature should be passed round the canal§.

The preceding considerations clearly prove that, from the time of Lafosse, jun., to 1828, veterinary practitioners and writers regarded lesions of the parotid duct as very serious, very long, very difficult to cure, and generally necessitating the extirpation or the disorganization of the parotid. Such, indeed, was the general opi-

* The same operation was subsequently performed by Mr. Percivall, an account of which is contained in his "Hippopathology," vol. i, p. 188. In the same work, Mr. P. was the first to suggest and carry into practice the disorganization of the glandular structure through caustic injection, an expedient, though it proved successful, seemingly unknown to M. Reynal.

† Recueil, tome i, p. 133.

‡ Dictionnaire d'Hurtrel d'Arboval, tome ii, p. 462.

§ Eléments de Pathologie Vétérinaire, tome i, p. 488.

nion in veterinary medicine relative to wounds of the superior salivary canal, when a case of cure, related by M. Olivier*, appeared to modify in some degree the exclusive ideas of incurability chiefly patronized by M. Leblanc.

This important surgical point, which, up to that time, had never been made the subject of controversy, could not fail of receiving the light which a wise and moderate critic always succeeds in throwing on the solution of every medical question.

Certainly, the case narrated by M. Olivier was of a nature to convince the most sceptical person that wounds in the parotid duct were, if not always, at least in some cases, capable of being cicatrized. Well! M. Leblanc, doubtless convinced of the beneficial results attendant upon complete extirpation of the parotid, does not hesitate to express a doubt respecting the cure obtained by M. Olivier, simply by patience and cleanliness; but not being able to contest the material point of the case, that is to say, the cicatrization of the external wound, which emitted the flow of saliva, explains to himself, by means of specious reasonings, *that the parotid had lost the power of secreting by becoming atrophized!* a strange argument, which can have no value excepting in the eyes of those who approve of the substitution of speculative ideas for the practical results of clinical study.

However it may be with regard to this opinion, which we will examine at a more fitting time, M. Olivier's case had the effect of creating a doubt in the minds of practitioners, and bringing the question to the fair tests of criticism and experiment. M. Leblanc first commenced a series of experiments, all of which, without exception, tended to confirm him in his pre-conceived opinion relative to the incurability of fistulæ of the parotid duct. The following is a short analysis of them, extracted from the "Journal Pratique," 1829, 30.

On the 17th Oct. 1828, this veterinary surgeon excised about the third of an inch in the left salivary canal, and made a longitudinal incision of equal extent in the opposite one, at the point of its passage close to the maxillary tuberosity.

After this double operation the saliva flowed abundantly. On the following day, the jet had much diminished: it was no more than a simple discharge, that increased when the horse ate oats. On the 1st of December, that is to say, forty-four days after the opening of the canals, the right wound, which had hitherto been pallid, began to cicatize; the discharge of saliva ceased: a fistula still, however, continued to exist on the left side, and the wound retained its pallid aspect. In the right duct, which had been excised longitudinally, M. Leblanc remarked a clot or core, produced by the accumulation of the saliva in this conduit.

* Journal Pratique, 1828, p. 401.

On the 5th of December, the left wound was almost cicatrized; there ceased to be any discharge, but the canal was sensibly distended between the cicatrice and the gland. Here commenced a series of morbid phenomena, to which we invite the particular attention of our readers. The wounds remained closed, the canals were distended beyond measure, the left much more so than the right one, doubtless on account of the obstruction existing in it at the spot where it had been divided; also the fistula renewed itself much sooner than in the right one, where there could only be a contraction at the point corresponding with the scar*.

On the 12th of December, fifty-six days after the operation, M. Leblanc remarked an enlargement of the left parotid, and at the same time the wound in the canal opened again, and gave vent to a large quantity of saliva mingled with coagulated albumen.

The right canal and the parotid became tumefied in their turn, and the swelling continued to increase up to the 22d of December. At this period the cicatrice of the right duct opened for a second time. On examining the parts, M. Leblanc was inundated by a discharge of dirty fluid, holding in suspension coagulated albumen. The left fistula continued still, and the animal became visibly thinner.

On the 25th of December this latter became cicatrized for the second time; the right continued with equal intensity.

On the 30th, M. Leblanc perceived two enormous soft tumours, externally, on the course of the cicatrized salivary canal; one close to the cicatrice, the other, which was about the size of a pullet's egg, at the origin of the secretory canal. On being incised with a bistoury they discharged a great quantity of saliva. The right fistula continued to exist.

M. Leblanc, not being able to keep the horse any longer, had him destroyed on the 30th of December, seventy-three days after the experiment. From the *resumé* of these experiments, made by M. Leblanc, it appears,

1. That the opening of the superior salivary duct, with or without loss of substance, is equally dangerous.

2. That in neither case is it susceptible of becoming healed by simple union.

3. That the fistulæ which appeared in consequence of the excision of a portion of the left salivary canal, and a longitudinal incision in the right one, still continued after the lapse of seventy-three days.

4. That several successive enlargements of the canals and the

* It is important that our readers should not lose sight of the fact, that the wound in the left canal was accompanied by loss of substance, while that in the right one was a mere incision, without solution of continuity.

parotids appeared that would have necessitated the extirpation of these latter, or caused the death of the patient.

The experiments of M. Leblanc were of too positive a character not to attract the attention of veterinarians to results that seemed calculated to impress the mind of practitioners with a conviction of the incurability of salivary fistulæ, and the necessity of an operation that, notwithstanding the authority of M. Leblanc, I believe it would be difficult to introduce into practice.

Struck with these conclusions, Messrs. Delafond and Vatel repeated a portion of these experiments. The left salivary canal was uncovered for an extent of nearly an inch, and an incision of about one-third of an inch in length was made in its longitude. The wound was left to itself: the saliva flowed copiously from it; the edges soon began to tumefy, turned over, assumed a pallid aspect, and exhaled a very bad smell. The discharge continued uninterruptedly.

On the fifth day, Messrs. Delafond and Vatel re-united the lips of the wound by some points of a simple suture. The saliva became effused through the surrounding cellular tissue, and created a tumour as large as a pullet's egg, which soon become hot and painful, although the course of the saliva was not interrupted in the interior of the canal. On the eighth day the tumour diminished in size, and the inflammatory symptoms disappeared.

Ten days after the re-union of the lips of the wound the points of the suture fell, and disclosed a healthy-looking wound, that was completely cicatrized on the 27th day after the operation. At the post-mortem examination, Messrs. Delafond and Vatel found that the incision into the canal was thoroughly cicatrized, and that its diameter, far from being contracted, was in fact greater in the length of the incision. Externally there was a slight induration of the surrounding cellular tissue. On summing up the results of this experiment, it will be seen:—

1. That an incision made in the salivary duct, if abandoned solely to the efforts of nature, does not appear to be able to re-unite itself by means of pure and simple cicatrization.

2. That a simple suture produced, within the space of fifteen days, a re-union of the solution of continuity*.

3. And, lastly, that there was neither obliteration nor contraction of the excretive canal of the parotid. From this period, several veterinarians have registered circumstantial facts in the annals of science, which prove that, in general, wounds of the parotid duct become cicatrized without contraction or obliteration.

M. Bettinger has related a case of this nature in the 'Recueil†.'

* Recueil, vol. vi, p. 335. † Recueil, 1828, p. 333.

On the fifteenth day after the accident the wound was cicatrized, and the saliva had resumed its natural course. Messrs. Philippe and Vitry have remarked the disappearance of a fistula of the same organ after a lapse of six weeks, without other aid than the efforts of nature and attention to cleanliness*. To these facts we might add numerous cases of cicatrization that have followed the extraction of salivary calculi from the parotidean canal.

Two observations of this nature will be found in the *Compte Rendu de l'Ecole de Lyon* for the year 1810†. More recently Messrs. Lejeune‡, Olivier§, Brossard¶, and Mazure‖, have reported cases in which cicatrization of incision of the salivary canal has taken place without the natural course of the saliva being impeded or intercepted.

We shall terminate this rapid analytic sketch by quoting the opinion so often uttered by M. Regnault in his clinical lectures. We are ignorant of the results which he has obtained from the experiments on ligature of the parotid duct undertaken by him; but in many instances we have heard this talented professor call the attention of his pupils to the exaggeration of the gravity of lesions of the parotids and of their excretory ducts.

We owe this homage to truth, to the respect which we bear for our master, and to a recollection of the kindness with which he honoured us while we were at the School at Alfort.

[To be continued.]

The Royal College of Veterinary Surgeons and the Veterinary Colleges—the Council and the Charter.

[*From the Era, April* 19, 1846.]

Two years have elapsed since the Crown was pleased to grant a charter to the Veterinarians, recognising their calling as a profession, and empowering their body to elect a council to frame bye-laws, hold property, &c. Mighty were the expectations many entertained when the existence of such a grant was first made public. Some imagined the charter was to put an end to all quacks and farriers; others supposed that it would confer all manner of immunities, or bestow every species of privilege; and not a few hailed it as the source whence was to flow never-ending prosperity. The

* Journal Pratique, 1829, p. 91.
† Read by Grognier on the 17th of May, 1830.
‡ Journal Pratique, 1826, p. 45.
§ Journal Pratique, 1826, p. 489.
¶ Journal Pratique, 1828, p. 492
‖ Related by D'Arboval.

more tempered and better informed, if they did not let their wishes give shape to their expectations, yet looked upon the instrument as one that was capable of being wielded for the benefit and advancement of the science in the prosperity of which their interests were involved. Two years have passed away, and, save some small changes, which, however, are nevertheless improvements, matters stand pretty much as they were. The alterations affect only the examinations of pupils, and to these are confined. No change tending to exalt the profession has been accomplished; and so far as the welfare of the veterinary practitioner is concerned, probably he has yet to feel that the charter has an existence.

There must be reason for this: there must be some cause that renders power inoperative; for, that the charter, by its clauses, gave power for useful purpose, none will deny. The mystery is soon explained. No sooner was the purpose of the grant made public, than the professors of the existing colleges proclaimed themselves injured, and asserted that it was drawn in a spirit opposed to their wishes and intentions. These professors had been among the petitioners to whose solicitations the grant had been acceded; but they now declared that secret use had been made of their names to procure the insertion of certain clauses to which, knowingly, they never would have consented, and of which they had designedly been kept ignorant. The accusation involved deception of the most revolting kind, and paralysed the body against which it was made. The time and the energy that otherwise would have been employed to ameliorate the condition of the profession, the council were, in consequence, compelled to devote to self-defence. The charges were met, satisfactorily refuted; and a person of ordinary capacity might have supposed that gentlemen who had been proved to have acted at least "under a *mistake*," would have acknowledged sorrow for their intemperance, and have remained silent for the future. Not so, however, with these professors. That which singly they found themselves too feeble to effect, they now sought assistance to accomplish. To oppose the charter, the English Agricultural Society was, with the Governors of the Royal Veterinary College of London, won over by the London professors, who, defeated and disgraced, were by no means dispirited; and the Edinburgh professor found it easy to persuade the Highland Agricultural Society to adopt a similar purpose. The Government was thereupon petitioned in the names of such as seldom sue without success; and the charter now remains in a condition that seems to promise either a speedy revocation, or such material alteration as will render the voice of the veterinary profession inoperative in the government of their own affairs.

We do not blame the members of those societies, nor the Governors of the Royal Veterinary College of London, for the parts which they have been induced to perform. We feel assured that, though mistaken and duped by false representation, every individual of their body is actuated only by what is conceived to be the loftiest principle. They are, however, deceived, and, upon highly coloured ex-parte representations, have imprudently sanctioned the use of their names by such as have a disappointed ambition to appease and a personal rancour to gratify.

Let these gentlemen pause before they are made the tools of a petty cabal, got up for an unworthy purpose. Let not these gentlemen be led away by names and titles that signify nothing. The London building may be called a college, but Morison built a college for the sale of number one and number two.

* * * *

We would have these gentlemen pause before they lend themselves to statements which, though true, are yet so advanced as to bear the sting of falsehood, and we here pause to illustrate the fact.

When under the newly chartered body the Board of Examiners was originally formed, Mr. Baker undertook the examination of pupils upon cattle, and to that gentleman singly, because of his known experience in a most difficult branch of study, this department was confided. Mr. Baker was regular in his attendance and searching in his investigations, and there was no room for complaint. To the Agricultural Society it was, however, formally represented that the institution of but *one* examiner on so important a subject was a proof of the necessity of interference, without which veterinary pupils might receive diplomas while yet unduly qualified to treat the diseases of ruminants, &c. The professors pointed out the grievance, and in doing this induced the belief that under the former system, of course, no such monstrosity as a single examiner upon cattle had existed. But how stands the fact? Under the former system, controlled by the Governors of the London Veterinary College, to whom the Royal Agricultural Society annually voted a certain sum for the teaching of cattle pathology, *no* examiner of any description was appointed, and no person having a diploma from the old Board can advance that he was questioned regularly or indifferently upon this branch of study. The institution of this office was the act of the chartered body, yet out of this very act was tortured an accusation, and the very accusation that was most influential in inducing the Society to occupy the position it at present holds.

* * * *

The charter, thus opposed by men who strangely are permitted to play with the names of dukes and baronets, marquises, lords, and members of parliament, may well have become inoperative. There is no room for wonder, if, with falsifiers in its walls and slanderers in its lobbies, its council has been occupied more in refuting accusation than seeking advantage. Nor must it be forgotten that the Government was distracted upon this question, no less than the Council of the Royal College of Veterinary Surgeons. The grant of the charter was universally regarded as presaging the relief of the veterinary profession from certain liabilities from which they have long sought to be released; but how can any Government be expected to introduce into Parliament a measure for such a purpose, when they behold the list of names arranged against the very charter upon the existence of which the bill must be proposed?

* * * *

From the profession the chartered body claims all indulgence. The Royal grant called on them to exercise certain powers which are at all times difficult to wield, and which, in fresh hands, are seldom exercised adroitly. If, however, they are allowed the plea of youth, we have a right also to expect that they shall exhibit the energy of juvenility. In this respect we admit they appear deficient. The right is with them, but they seem not to be actuated by the courage a true cause ought to inspire. They appear to pause when we would have them act, and talk when they should strike. Their opponents are too far committed to be fit subjects for mercy, and commiseration to these is treachery to the party whose interests the Royal College of Veterinary Surgeons are appointed to defend. Let "the truth, the whole truth, and nothing but the truth," be spoken, and there is no fear for the issue. The spirit of truth must animate the Council. A few of courage may in a crowd have their cheers overpowered; and such voices as Messrs. Mayer and Gabriel could exert might, if not seconded, be lost amidst the confusion which the turpitude of one or two could designedly occasion. The welfare of the country, no less than that of the profession, demands the total reform of the London Royal Veterinary College, and the establishment of the Royal College of Veterinary Surgeons.

THE VETERINARIAN, MAY 1, 1846.

Ne quid falsi dicere audeat, ne quid veri non audeat.—Cicero.

Our professional subscribers will hardly have had time to peruse the present number of our Journal ere they will find themselves summoned to attend the Annual General Meeting of the Members of the Royal College of Veterinary Surgeons, held on Monday, the 4th instant, at the Freemasons' Tavern, whither, we hope and trust, as many of them will wend their way as shall not through business, illness, or unreasonable distance, be prevented. Since the last meeting, matters of great importance to the chartered body have transpired, of which it will be the duty of the Council, in their Annual Report, to inform the members. The Charter has undergone another year of trial—of, we might say, *ordeal.* Powerful efforts have been made to alter it, to overturn it: still it exists—has indeed passed unscathed through the fire, and, like so much refined gold, now shines with yet a brighter lustre in our eyes than even it possessed before. At its first creation, without going the unwise length of pronouncing it faultless, we declared the Charter, in our opinion, to be a *good* one; since, however, we have come to learn the nature and extent of the alterations proposed to be made in it, and since we have seen what a broil and bubble the surgeons have been, and still are in, about their charter, we must confess, for our own part, that the goodness we at the first conceded to it has increased to *excellence.* The beauty of our Charter consists in its *representative* character—in its giving every member of the profession a voice and a vote in all great transactions affecting the general body—and in placing at their entire control the election of that council by which all matters of ordinary or minor concern are to be regulated. Its ugly features—ugly at least to those who so regard them—are such provisions in it as deprive the veterinary schools of those privileges of which they never ought to have been in the possession, and never would have

been but for the want of a charter at the time professional scholastic institutions took their rise.

If there be one act in regard to which the Council, during their last (sessional) year's proceedings have reason for congratulating themselves on the course of policy they have adopted, that single act is the wise determination they came to, to express their contentedness with their Charter, and by it to stand or to fall: had they evinced any wavering—any hesitation—made but one slip, one opening—there was a party ready to rush in, and the result would have been the demolition, in shape of "alteration," of the present "act and deed." We say therefore, and we say again, if there be one proceeding in preference to another for which the Council may take to themselves especial credit, it is that of standing firm by their Royal Charter of Incorporation. We now, with complacency, look upon the battle as fought and as won; and therefore we feel that the time has arrived for us to think about carrying out certain highly important and necessary provisions of the Charter, which, from the disturbed state in which professional affairs have been, and other reasons, have not as yet been able to be brought about.

Two questions of interest and importance will demand the attention of the assembled members at their forth-coming meeting: one is, the making of due and necessary household provision for the chartered body; the other, the making of what provisional support they can for such members belonging thereunto as may unmeritedly experience the frowns of fortune; or for those, nearest and dearest to them, whom they through misfortune may leave unprovided for behind them.

Our Charter has constituted us THE ROYAL COLLEGE OF VETERINARY SURGEONS: thus, we have a name, and an appropriate one too; but where is the "local habitation" which that very name would seem to imply we had likewise been endowed with? Where, indeed! Where can it come from? Whence can it be provided, save out of the pockets of the members of the corporate body? The only fund—if *fund* it can be called—the College at present possesses, is what arises out of the fees payable on diplomas: after, however, the Examiners have been paid their fees, and other incidental expenses have come to be reckoned, we

fear but little—or absolutely less than little—nothing—remains in the hands of the Treasurer. What we should propose is, that an annual subscription be forthwith entered into by the members of the College—say a guinea or half-a-guinea per annum—or make one the *maximum*, the other the *minimum* subscription: an arrangement which, it is hoped, every member, feeling a pride for his name and standing in society, will joyfully enter into. Surely, out of pretty nearly a thousand members, a sufficient yearly sum might be raised to take a house, or part of a house, somewhere in the metropolis, wherein the members might hold their meetings and have their examinations, and to which, in the course of time, might be appended museum, library, &c. Formerly the College of Surgeons, now so proudly rearing its head in Lincoln's-Inn Fields, was represented by an inferior building in the Old Bailey. And the College of Physicians, the present stately pile in Pall Mall East, was once but a mean-looking house in Warwick Lane. Why, then, should not the Royal College of Veterinary Surgeons one day experience similar aggrandisement? It needs but for the profession to lay the first brick; time and perseverance will achieve the rest. Let us then, sinking all vain, puerile, and futile bickerings, as members of one common profession, unite together in one common cause, and raise a structure in representation and honour of our infant Charter of Incorporation;—let us shew those from whose hands we received the Charter that, at least, we are not unworthy of the boon;—let us, in fine, look forward to the day when we shall lift up our heads as we pass to view a fabric not unworthy the name of THE ROYAL COLLEGE OF VETERINARY SURGEONS!

One other important question, we repeat, will engage the attention of the General Meeting; and that is, THE PROFESSIONAL ANNUITY FUND. To what has been said—and so energetically and appealingly said—on this subject by Mr. Baker and others, we can have nothing to add, save the hope that the members present at the meeting will be prepared to lend a favourable ear to an address which—we have reason for believing—Mr. Baker is prepared to make to them on Monday next.

REVIEW.

Quid sit pulchrum, quid turpe, quid utile, quid non.—Hor.

The Horse's Foot, and how to keep it Sound; with Illustrations. By William Miles, Esq. London: Longman, Brown, Green, and Longman. Exeter: Spreat and Wallis. 1846.

Doubtless, it is the vast importance of the subject, coupled in most instances with the conviction that certain points, latent or ill understood, yet remain to be developed or explained, which prompts veterinarians so often to make choice of the Foot of the Horse as the burthen of their literary labours: in the case, however, of non-veterinary writers on the subject, we cannot help suspecting another motive in addition, and that is, that the Foot of the Horse to them—who seldom extend their observations beyond its outer covering—has the appearance of being a structure of singular simplicity and obviousness. Hence it is we find so many amateur writers and inventors of horse-shoes—so many persons, in fact, who though they pretend to no knowledge whatever of anatomy and physiology, yet, in their own thinking, possess a perfect understanding of the Foot. Would these good people, however, but deign to cast a look into the *interior*, but condescend to take one glance of the *works* of the Foot, we have a notion they might exclaim, with the "eye-doctor" in the country who was celebrated for the operation for cataract, until a London surgeon taught him the anatomy of the eye—"This knowledge of anatomy has quite spoiled me for an operator"—*mutato nomine*, "for a writer or inventer." When we say that the candidate for veterinary authorship who has selected for his theme the Foot of the Horse, and added thereto the Art and Practice of Shoeing, could hardly have hit upon subjects requiring for their exposition a more profound knowledge of anatomy and physiology than the one, or embracing a greater variety of opinion than the other, we may possibly stagger some of our amateur readers: such, however, is the case; and by way of proof we may bring under their notice such names as Solleysell, Lafosse, Osmer, James Clarke, St. Bel, Coleman, Goodwin, and Bracy Clark—men who have spent the whole or the best part of their literary lives either in the investigation of the structure and functions of the foot, or in the improvement of the art of shoeing. And by them and others has every corner of this field of science been so

ransacked in search of novelty, that, in the farrier's art at least, but little or nothing appears left for future explorators: indeed, when we come to compare even the present "improved" practice of shoeing with what was either in vogue among or known to our ancestors, we find we of the present age have but little to boast of in the province of discovery; and this is the reason why the old works on shoeing are held, and deservedly so, in such high estimation at the present day.

The work now before us holds a sort of middle place between the production of an amateur and that of a veterinarian. Mr. Miles has stripped the foot of its outer covering to examine the organic and sensitive structures within, of some of which he has given short descriptions: he speaks of "the sensitive covering" of the coffin bone, of the "sensitive sole and frog," of the "coronary substance," of the "cartilages," of "secreting membrane," and of "bloodvessels," "nerves," &c., which is more than amateur writers in general do, and more perhaps than Mr. Miles would have attempted, had he not been—as we believe he is—a *medical* amateur veterinary writer. Under these circumstances, and briefly as the several subjects included under "the Horse's Foot" are treated, it would be hardly fair for us to enter upon a *veterinary critique* of the work: we shall, therefore, content ourselves with noticing a few of its striking or prominent features.

Mr. Miles commences his Preface with informing us that he undertook the present work "at the solicitation of several friends," who deplored to him "their *total want of any thing like useful or practical knowledge upon the subject of shoeing!*" This is casting a strange reflection upon veterinary writers on the foot. Surely these gentlemen never heard of the works of Coleman, Goodwin, and Bracy Clark—to say nothing of the old authors, and of such modern ones as have embodied their observations on the foot and shoeing with other matters. What Mr. Miles means by "*untiring perseverance in one unwearied plan for a series of years*" (Preface, p. iv) we scarcely divine, unless it be that the present general system of shoeing is but little varied, and has been but triflingly so for many years past; and for the best of reasons—because, under all the circumstances, it has been proved to be the one which *practically* answers the best; nor have we found in Mr. Miles' work any thing to induce us to alter it.

Mr. Miles, in a true philosophical spirit, denounces the presumption of man in interfering with the hoof of the colt before the time has arrived for his being shod:—

"It should surely be our object to retain these valuable qualities as long as we can, and not lightly sacrifice either of them to a false notion of a prettier form. Whenever we observe Nature steadily

persevering in one form or one plan, depend upon it, it is not within the range of man's ingenuity to amend it; and he will better serve his own interest in accommodating his views to her laws, than in attempting to oppose them. In this spirit let us proceed with our subject."

Further on, however (at p. 14), Mr. Miles says, to our surprise, "I very much doubt either the utility or wisdom of leaving the bars projecting beyond the surface of the sole;"—

But, if we are implicitly to follow Nature—to let that alone which she has made simply because she *has* made it—what matters whether *we* can discover "the utility or wisdom" of it or not?—That, in veritable philosophy, has nothing to do with the question.

Mr. Miles is very desirous to reduce the number of nails commonly employed in fastening shoes upon horses' feet; and the principle on which he reasons for their reduction—the old one of unfettering or rather less fettering the hoof, and thereby giving greater liberty of expansion—is admitted by us all to be an undeniable one. At the same time it must be remembered that it is not the *number* so much as the *situation* of the nails that fetters the foot: two opposing nails placed far back towards the heels will, as regards expansion, do more harm than double the number towards the toe; though, in point of security, one in the former situation is equal to two in the latter. In fact, there is a great deal more to be said on this subject than Mr. Miles has said, or, as we suspect, imagines; and, although we feel no hesitation in subscribing to his opinion that six nails are to be preferred to seven, and five to six, yet have seven—four on the outer side and three on the inner—not been, *in general*, used without good and sufficient reasons. Where but five are employed, they must, to be effectual, be placed at greater distances apart, and consequently be liable, as we said before, to prove nearly or quite as injurious as six or seven. However, Mr. Miles shall speak for himself:—

"Three years ago, I commenced a series of experiments upon shoeing, with a view, among other things, of ascertaining how few nails are absolutely necessary, under ordinary circumstances, for retaining a shoe securely in its place. The subjects of my experiments were six horses of my own, and three belonging to friends: the nine among them representing very fairly the different classes of pleasure horses; not indeed including hunters or race horses, each of which require a separate and totally different treatment; but carriage horses, ladies' horses, and roadsters; and they also included the common variations in form and texture of the generality of horses' feet.

"When my attention was first directed to the subject of nailing,

I was employing seven nails in each fore and eight in each hind shoe. I then withdrew one nail from each shoe, reducing the number to six in the fore and seven in the hind shoes; and finding, at the end of a year, that the shoes of all the horses had been as firmly retained as formerly, I withdrew another nail from each shoe, leaving only five in the fore shoes and six in the hind. I found, however, that six nails would not retain the hind shoe of a carriage horse, without allowing it sometimes to shift; so I returned to seven in the hind shoes, and have continued to employ that number ever since; but five have retained all the fore shoes as firmly, during the whole of the last year and a half, as six had previously done.

"I have invariably directed and superintended the whole operation of shoeing during these experiments, and have always been very careful to mark that the nails were not driven high up in the crust, but brought out as soon as possible; and that they were very lightly driven up before the clenches were turned down, and not, as is generally the case, forced up with all the power the smith can bring to bear upon them with his hammer. I mention these circumstances to shew that my object really was to ascertain *how little* would retain a shoe, and to what extent the foot might be relieved from the evil of unnecessary restraint—a matter sometimes of great moment, and at all times desirable.

"The clenches should not be rasped away too fine, but turned down broad and firm. The practice of rasping the whole surface of the hoof after the clenches have been turned down should never be permitted: it destroys the covering provided by Nature as a protection against the too rapid evaporation of the moisture of the hoof, and causes the horn to become dry and brittle.

"Two of the horses alluded to above, worked for some time with only four nails in their fore shoes.

"I have detailed these experiments with a view to expose the groundless nature of the fear that expects to cast a shoe at every step, unless it be held to the foot by eight or nine nails driven high into the crust. If the presence of a nail in the crust were a matter of no moment, and two or three more than are necessary were *merely useless*, there would be no great reason to interfere with this practice of making 'assurance doubly sure;' but it is far otherwise:—the nails separate the fibres of the horn, and they never by any chance become united again, but continue asunder and unclosed, until by degrees they grow down with the rest of the hoof, and are ultimately, after repeated shoeings, removed by the knife.

"If the clenches should happen to rise, they must be replaced without delay, as they impart to the nails a freedom of motion

which is sure to enlarge the size of the holes; and this mischief is often increased by the violent wrenching the shoe undergoes from side to side in the process of removal by the smith.

"Now as these holes cannot possibly grow down, and be removed under three shoeings, it will be found that, even with seven nails, the crust must always have twenty-one of these separations existing in it at the same time; and as they are often, from a variety of causes, extended into each other, they necessarily keep it in a brittle unhealthy state, and materially interfere with the security of the future nail-hold. Unluckily, the common practice under such circumstances is to increase the number of nails, with the view of ensuring the security of the shoe, while, on the contrary, it increases the evil. My object is to shew that these shaky places, as they are called, may be relieved by the omission of one or two of the nails, without endangering the security of the shoe. Suppose the number employed to be seven; to gain such an end they might be safely reduced to five, which is the largest number I have employed for more than a year; and until I discover some good reason for increasing it, it is the largest I intend to employ. *But I am far from advising the general adoption of this number;* for if—from neglect of removing in proper time, or of knocking down the clenches, should they rise, or any other cause—the horse should chance to cast a shoe, the whole blame would be attributed to the five nails; and the poor beast, in all probability, be doomed to eight or nine for the remainder of his life. *I do, however, very strongly advise the adoption of six,* knowing them to be fully sufficient for retaining the shoes of all pleasure horses under all circumstances, except, perhaps, hunters. If I had entertained the smallest doubt about their efficiency, it would have been entirely removed on the arrival of the 13th Light Dragoons last year in Exeter; for among the horses of that regiment I found—through the kindness of Lieut. Col. Brunton, who allowed me to inspect the shoeing—the strongest possible confirmation of the truth of my position; for here were horses with every variety of feet shod with six nails only, and these all placed in the outside limb and toe of the shoe, all the remainder of the shoe remaining free and unattached to the foot. Mr. Legrew, the very intelligent veterinary surgeon of the regiment, informed me that he had not employed more than six nails for nearly two years, and that the loss of a shoe was a very rare occurrence with them, even on a field day, than which there is scarcely any work more trying to the security of horses' shoes. Any mode of fastening, that has proved itself equal to retaining the shoes through a long field day, in stiff ground, may very safely be recommended as fully sufficient for all ordinary purposes."

Quitting the subject of the Foot, Mr. Miles expresses his full concurrence with Mr. James Turner in his estimate of the benefits arising from—or rather the evil eschewed by—lodging horses in loose boxes, in place of tying them up in stalls; and has submitted the following ingenious and ready plan for the conversion of stalls into such places—i. e., loose boxes—if elongated stalls can be so called.

"Most modern stables are built with stalls from six to seven feet wide, with plenty of room behind the horses to allow of passing, without incurring the danger of being kicked:—in such a stable sink a second heel post at just sufficient distance from the wall to allow a free passage, and take the space so gained into the stall; close it with a gate, and you will have a very fair substitute, in the absence of a better, for a loose box, and that, too, without sacrificing a standing for a horse: but, if a stall can be conveniently spared, a four-stalled stable may be converted into three very good boxes by shifting the divisions, and taking in the space in the rear of the horses."

Two objections are made to loose boxes:—one is, that horses are never *tidy* in them—lying down, and rolling and fouling their clothes; the other, that they will *eat their litter*. Muzzling will remedy the latter objection. But to the muzzles in common use—the leathern one and the iron one—Mr. Miles raises objections on account of the one not giving vent enough for comfortable respiration, and the other permitting the horse still to feed through its bars; and in their place he has invented *a wire muzzle,* of which, from his description and drawing, we are disposed to think very favourably, providing the weight of it prove not objectionable.

Notwithstanding Mr. Miles' work contains but little to interest the veterinary reader, yet will most veterinarians feel desirous to possess it, when they come to see the lithographic drawings of hoofs and horse-shoes it contains: to our mind, these display more ease and softness and nature than is to be found in the productions of many professional artists. Amateurs, however, will read the work, concise and light as it is, with that sort of pleasure which will be certain to carry instruction along with it; and thus will they fit themselves, should they feel disposed to enter deeply into the subject, for the perusal of those heavier and more elaborate treatises on the foot of the horse to which we have in another place directed attention.

MISCELLANEA.

Honourable Horse-dealing.

On Wednesday last, Messrs. Graham and Sanderson, railway-contractors here, bought a bay gelding from Mr. Peter Piddie, horse-dealer, Edinburgh, warranted sound, &c. This was afterwards suspected not to be the case. I was sent for to examine, and gave certificate of unsoundness on Saturday, which was inclosed in a letter from Mr. Sanderson, and sent to Edinburgh by a servant, when Mr. P. immediately took the horse, and returned the money—£33.

This is the first case of the kind that ever occurred in my practice (and of these cases I have had a considerable number); but were horse-dealers to act in this straight-forward and honourable way, it would save a great deal of tedious and unnecessary litigation, a great deal of ill-will among parties, and save also that unnecessary difference of opinion at present so disgraceful, and which makes our profession a mock and a by-word, and in many cases makes a buyer often put up with the cheat he may have got, rather than risk his case in the hands of a law-agent, where his witnesses necessarily must be veterinary surgeons, each giving a different opinion on his case.

As this is rather a rare case, please give it a corner in The Veterinarian: it may, perhaps, stimulate others to act in the same honourable manner.

Your most obedient servant,

J. Horsburgh, *V.S.*

Dalkeith,
15 April, 1846.

William Woodhouse *v.* Thomas Everatt.

This was an action on the warranty of a horse.

Mr. Humfrey, Q. C., and Mr. Wildman, conducted the plaintiff's case; Mr. Whitehurst, Q. C., and Mr. Willmore appeared as counsel for the defendant.

The plaintiff is a horse-dealer, and the defendant a farmer, at Scotton, Yorkshire. The plaintiff was riding with a witness (Ledger) in the neighbourhood of Scotton, on the day after Kirton fair, early in December 1844, and met the defendant, who had with him the horse in question, a very fine looking animal, of the

quality for a gentleman's carriage in the metropolis. Conferred with the defendant, and subsequently bought it with a warranty of "sound and free from vice, no crib-biter, roarer, or windsucker," for £33, and sold it a day or two afterwards to a Mr. Oxley, a farmer, for £5 profit, and £2 more if it fetched £70 at Lincoln market. It was, however, pointed out to Mr. Oxley, and that gentleman ascertained thereupon that he had a contraction of the near fore-hoof to the extent of half an inch, and was thereby made lame and irremediably unsound. He gave notice to the plaintiff, who was obliged to take him back, and did so, repaying to Mr. Oxley the £38, and paying over £12 for sixteen weeks' keep, at 15*s*. Mr. Woodhouse, the plaintiff, sought to induce the defendant to take back the horse, and pay him the £33, and what he had had to pay for the keep; but the defendant, though he offered to take back the horse, and pay back the £33, wholly refused to pay any thing in respect of the plaintiff's payment for the keep. This induced the present action. Mr. Oxley, a farmer, had bought the horse with the view of making him up for the Lincoln fair market. The horse was subsequently put up at Lincoln fair, to be sold by auction, where, as it was stated, and appeared probable, agents employed by the defendant bought him for £33, the price at which he had sold him; and the defendant immediately resold him to a witness for £20 on the very same day. The auctioneer paid over the £33 to the plaintiff, *minus* £1..3*s*., this latter sum being the amount of his charges. It appeared from the plaintiff's evidence that the horse's near fore-hoof had been contracted, as stated, half an inch; that it was consequently lame, and that the evil must have been of six months or so, at least, standing. This was stated to be evident, from the fact that the muscles of the fore-arm of the shoulder had actually become contracted.

A great number of witnesses were called on both sides, all of whom diametrically, as usual, opposed the statements of the opposing witnesses. The horse was returned to the plaintiff about the middle of April.

John Cheswick was acting as groom in Mr. Oxley's stable. Saw that the horse was lame in the near fore leg. Wasn't able to tell the cause. Told Mr. Oxley of it. Afterwards bled him, and gave him a dose of physic. He got no better, and was returned. The feet were stuffed with dung by accident.

Alfred Huddlestone.—Was a veterinary surgeon at Kirton, and member of the College. Had been in practice twelve years. Was sent for, and examined the horse in April. Its unsoundness was at least of six months' standing. Had a contracted foot. Founded his opinion of the long standing by the wasting of the muscles of the shoulder. One foot was nearly half an inch less in diameter

than the other. This would produce a wasting away of the muscles of the fore-arm and the shoulder.

Another veterinary surgeon (Mr. Dawes) deposed to the same effect.

A witness stated that Everatt, the defendant, said in a conversation that he would rather give back the £33 than have a law-suit, and that it was clearly lame then.

Numerous witnesses were called on both sides respectively to affirm and negative the soundness of the animal at the time of sale, and from first to last; but the defendant did not call any one of his seven sons who resided with him, or any one farrier who had shod the horse. It was further deposed to, that the horse was exposed for sale in the previous September at Stockwell fair, and objected to by a Mr. Fox and others on the ground of its unsoundness; that the defendant had then refused to warrant him, and that lame prices had then been bidden, refused, and the horse brought home again.

The jury presently returned a verdict for the plaintiff for the amount that he had paid Mr. Oxley for the keep, and the 23*s.* he had been forced to pay the auctioneer at Lincoln; damages, therefore, £13..3*s.*

On the Rot in Sheep.

By Mr. Thomas Joy.

Sir,—Having observed lately some accounts complaining a little of the prevalence of the rot in sheep in certain places, and believing any person would be glad to learn any thing that might be of service to them, if they happen to have a flock infected with this dreadful malady, I beg permission, through the columns of "The Express," to recommend to those persons the use of common salt as one of the best things to allay its progress; and being an article always at hand, can be promptly administered. Prevention, in all cases of evil, is easier than cure; and it is much to be regretted that this useful article should be so much neglected in the rearing and feeding of cattle. Horses, neat cattle, and sheep, should be always early accustomed to its use. It is easily given, and those who have the care and management of stock should be taught never to neglect it. But persons who have not been in the habit of using it in the feeding of their sheep, and have reason to believe their flock infected, which is readily known to experienced persons by examining the eyes or the liver of one that may happen to die, let them take the sheep into a dry sheltered yard, and give to each a desert spoonful of salt, holding the head of the animal upwards, when the salt is in its mouth, for two or three minutes, until it is dissolved by the saliva and carried down into the stomach. Keep them a few hours from water, and give them dry

food, such as bran, cut hay, a little bruised oil-cake, and a few cut Swedes: among any of their food give them a portion of salt constantly. If they do not at first take their food so freely in consequence of the admixture of the salt, slacken the quantity administered in this manner, and give them a second dose, as at the first, on the second or third day: they will soon take it freely enough in their food. This will, in a great measure, cleanse the stomach and intestines of those crudities that often lodge therein; and though this may not accomplish a perfect cure where the malady is very bad, it will be the means of staying its progress in a great degree, give time for fattening the animal, and thus mitigate the severity of the loss. But to young sheep, if taken at an early stage, it often will, by judicious management and care, effect an entire cure. In meadows where sheep are depastured, a quantity of salt (some prefer a lump for them to lick) should be deposited in a covered sheep-trough to preserve it from the rain. The sheep, having access to this, will constantly use it, and more at some times than at others, and it will be the means of keeping them in a healthy and thriving state.

The saline particles carried by the winds over the Downs near the sea contribute much to the health of the flocks feeding thereon.

Mark Lane Express.

Veterinary Schools and Breeding of Horses in France.

Attention has been particularly directed of late years in France to the improvement of the breeds of horses, of which some are possessed of properties useful and peculiar to the country, the great desideratum to be supplied being the acquisition and naturalization of horses of pure race and greater speed. When any object is desirable and expedient in a national point of view, the Government there is not slow in its direct intromission; and accordingly with that faculty for systematising in which the people are so ready and expert, a grand plan was speedily traced and organized for forming some extensive establishments of *haras*, or convenient open grounds and buildings for the reception, pasture, and superintendence of the best breed, in various districts of the country, for which indeed models were to be found in Hungary and the Crimea. At yearly exhibitions of horses, premiums are besides awarded to all such breeders or farmers as shall produce horses of the most approved qualities; and to encourage individuals in improving their stock the choicest horses are supplied from the *haras* to the proprietors of brood mares for a trifling consideration. A permanent commission for the examination and registration of horses of pure blood is constituted, at the head of which are the Duc Decazes, Count de Flahaut, with seven other distinguished persons, under

whom are different services conducted by inspector-generals, directors of the *haras*, and directors of the depôts of entire horses, &c. The most useful institutions, however, springing out of and attached to the system of these *haras*, are doubtless those of the "royal veterinary schools" and "royal *vergeries*," the latter a kind of horse folds, as it may be said. The advancement of veterinary science by training scientifically to the practice persons of superior general attainments, and thus elevating to the dignity of a profession an art hitherto abandoned to a class of men of such low degree as to be without pretensions to more than the commonest rudiments of education, when any at all, has long been felt in this country to be a consummation earnestly to be wished, but of which the means to the end could not exactly be comprehended without the intervention of the state, which was not a very probable event. In France, however, the object is at once attained, or in progress, by these veterinary schools, of the principles on which founded and to be governed the following outline may perhaps be of some interest generally. There are three of these schools, one at Alfort, near Paris, another at Lyons, and a third at Toulouse. Any one is admissible into these schools from sixteen to twenty-five years of age; some at the charge of parents, others entitled to a whole or a half *bourse*, which would seem something like the exhibitions for the universities attached to various grammar-school foundations here. The charge for board and education is 360 francs per annum, or about £14..8s., payable quarterly, and in advance. All the pupils are subject to the same *regime*, clothed in the same manner, and receive the same instruction. The time of entrance is fixed for the first Monday in October of each year. No one can be admitted without the authorization of the Minister of Agriculture and Commerce: the candidates authorized to present themselves do not definitively take rank among the pupils until, on examination before a competent jury, they are proved to possess the requisite conditions, which are, to be able to read and write correctly, and to forge a horse or ox shoe, *en deux chaudes*, a technical expression which seems to imply the making the shoe in two heats, or whilst the iron is twice heated in the fire for the operation. Every request for authorization to enter into the veterinary schools must be addressed to the Minister of Agriculture before the 1st of September at latest, with a copy of the register of birth of the petitioner, a certificate of good conduct, and an attestation that he has been vaccinated, or has had the small pox. The Government defrays the expense of one hundred and twenty *bourses*, one for each department, at the nomination of the Minister of Agriculture and Commerce upon the presentation of the Prefect, and thirty-four on the direct nomination of the Minister. These *bourses* are all divided into half *bourses*. In order to

obtain a *demibourse*, a pupil must have studied six months, at least, as pupil paying *pension*, and that he shall have distinguished himself by the regularity of his conduct and success in his studies. The pupil entitled to a *demibourse* may obtain a second, but always as a reward of good conduct and successful progress. The Minister of War supports at the veterinary school of Alfort forty military pupils for the service of the cavalry. The pupils who, after four years' study, are adjudged capable of exercising the veterinary art, receive a diploma as veterinary surgeon, the cost of which is fixed at 100 francs. The veterinary schools have hospitals attached to them for the reception and treatment of diseased animals. The owners of these horses have only to pay the alimentary charge, of which the price is fixed yearly.

It is clear that an institution so well conceived, conducted on rules and principles so well ordered, cannot fail to answer the important and economical purposes of the founders, by producing a class of educated and skilful practitioners capable of rendering great service both to the state and individuals.

The Value of a Dead Horse in Paris.

The use to which dead horses are put may be gathered from a brief account of the establishment at Montfaucon, near Paris, consisting of what we should call knackers' yards. After the horses are deposited there, the hair of the main and tail is cut off, which amounts to about a quarter of a pound; the skin is then taken away, which is disposed of to the tanners, and used for various purposes. The shoes are sold as old iron; the feet are cut off, dried and beaten, in order to make the hoofs come away, or are left to putrefy till they separate of themselves, when they are sold to turners, comb-makers, manufacturers of ammonia and prussian blue. Every morsel of fat is picked out, collected, and melted, and is used for burning by makers of enamel and glass toys, greasing shoe leather and harness, and manufacturing soap and gas. The workmen choose the best pieces of the flesh to eat, preferring those about the head, and sell the rest for dogs, cats, hogs, and poultry. It is also much used for manure and making prussian blue. The bones are disposed of to cutlers, fan-makers, &c., and are often made into ivory black, and also occasionally serve as fuel for melting the fat, and for manure. The sinews and tendons are sold to the glue-makers; the small intestines are made into coarse strings for lathes, &c., or serve as manure. Even the maggots, which breed in great quantities in these yards, turn to account, for many are sold to the fishermen, and the rest, when developed into flies, attract such numbers of swallows that the Parisians make a shooting ground of the neighbourhood.—*Popular Record of Modern Science.*

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LAMENESS.

By WILLIAM PERCIVALL, *M.R.C.S.*

PATHOLOGY OF SPAVIN.

[Continued from p. 186.]

HITHERTO I have regarded spavin as consisting in *exostosis.* An osseous tumour makes its appearance, either at the time of the manifestation of lameness or shortly afterwards, to which, and to which alone, the pain on motion of the hock, causing the lameness, used in times past to be ascribed by veterinarians. Professor Coleman taught that spavin was no more than a splent of the hind leg; and when once a doctrine is propounded formally *ex cathedrâ,* persons in general are apt to place implicit faith in it, few caring or troubling themselves to put it to the test of practice. In time, however, experience, unaided by any special or direct experiment, frequently detects error in received doctrines, and this has been the case in the instance before us. The Professor's pathology of spavin has proved by observation to be both defective and erroneous. True or genuine spavin is now known to have its site *above* where splent is situated; and, moreover, it is ascertained that what from the beginning is no more than a splent in the hind limb, rarely turns to a true spavin, but continues in the form of a "knot" or knob, to which little or no importance is attached, from the circumstance of its rarely or never being known to be productive of lameness. This is an error. But the grand defect in the Professor's theory of the pathology of spavin is its insufficiency to account for the extreme lameness so often present to explain the reason of the disease being so commonly irremediable, all which has since been most satisfactorily accomplished. In the year 1830, Mr. Goodwin, the present Veterinary Surgeon to the Queen, read a paper to the Veterinary Medical Society* on the subjects of navicular disease and spavin,

* Published afterwards in vol. iii of THE VETERINARIAN.

wherein, after informing the members present on the occasion that "his ideas on spavin were altogether different from those of authors both of the past and present day," he introduced, by way of illustration of his own views, a case which, "as it corresponds," said Mr. Goodwin, "minutely with others from which I have derived my notions of spavin, I need only trace the symptoms that were present in this instance, to put you (the members) in possession of my experience on this disease."

"The subject of this case was a harness horse of unusual perfection both in shape and action, and was a great favourite of an illustrious personage (George IV). He suddenly became lame behind, on the off fore-leg, and without the least visible alteration of structure to account for it. Circumstances, unfortunately for the poor beast, were such—the lameness disappearing after being turned out for a short time—that, instead of being given up immediately for treatment, he was made to perform his usual work until perfectly incapacitated from it by returning and aggravated lameness. Suspecting the seat of mischief to be in the hock, although at the time *the joint was unaltered in its form*, he was, three months after the commencement of the disease, blistered and fired; after which operations he was turned either into a loose place or into a paddock, as circumstances required. Not the least amendment took place at the end of six months, even in his quiescent state; and, after twelve months' trial from the time of his being given up for treatment, he was destroyed, his case being naturally considered a hopeless one."

"You will perceive"—continues Mr. Goodwin, holding up the hock for the inspection of the members present—"that ulceration of the synovial membrane, taking its origin between the two cuneiform bones, has extended into the substance of the bones; that they have become *carious;* and the disease has been gradually extending itself to other parts of the joint; and I have no doubt that, had the animal been suffered to work on for any length of time, *necrosis* and anchylosis of every bone concerned in the hock-joint would have been the result, as you will observe has been the case in the hock [holding up to view another specimen] I now shew you."

At a subsequent sitting of the Society, Mr. Goodwin produced a third specimen of spavin, in a hock that had belonged to a horse, also the property of George IV, and which had cost 350 guineas at five years old. The horse had had curbs, for which he had been fired. Four or five years ago he shewed stiffness in his hind limbs in action; but, as the stiffness disappeared after he had been ridden for a short time, no serious notice was taken of it, and the disease —the occasion of it incipient spavin—was left to make such pro-

gress, that, when the horse came at length to be given up for treatment, he was found past all remedy. However, he was blistered and turned out; but, after being turned out, he became worse, and was in consequence destroyed. In the off hock, in which there was the least lameness, there was *no exostosis, no alteration in the form of the joint;* but there was ulceration of the synovial membrane, with slight caries of the cuneiform bones. In the near hock the disease proceeded from *caries* to *anchylosis:* there was *no separating the large and middle cuneiform bones from each other* even with a chisel, or *the latter from the cannon bone.* In neither hock was heat detected during life; *nor was there any tumour or other external indication of disease.*

In the year 1832 a case of spavin occurred to me which fully bore out Mr. Goodwin's first views of the disease. No. 4 of G troop of my regiment was passed by me, at four years old, in the autumn of 1829, as sound, and was at the time remarked by every person who saw him to be one of the handsomest and best bred colts we ever recruited. In July 1832 he was brought to me lame. I found he had a spavin, for which I ordered the ung. antim. tart.; and the result was, that, at the expiration of a month, with rest, he had become sound enough to return to work, and was ridden again in the ranks. In the January following, however, (five months afterwards) he returned to me as lame as ever. He now was fired, and subsequently turned out. In May, being once more "relieved," sound enough to take his work again, he left my care for duty, and continued thereat until the ensuing August, at the latter end of which month he experienced an attack of pleurisy, of which he died. This afforded me an opportunity of examining his spavined hock, and I found such appearances, with the addition of the exostosis, as Mr. Goodwin has described, with evident ulceration and caries of both the tibia and astragalus as well*.

The foregoing case, while it is confirmatory—if confirmation were needed of a fact now become so notorious—of the morbid states of the articulations of the hock in spavin, likewise seems to shew that the disease of joint exists at a very early period; for, although this horse was taken under treatment *from the first day he evinced lameness,* yet was he never afterwards rendered sound. Bloodletting from the thigh vein, purging, fomentation followed up by inungation with the antimonial ointment, and a month's rest, had done as much as it generally does in such cases;

* There are naturally—as has been before remarked—little *fossæ* or pits observable upon the trochleated surfaces of these two bones: in this case these pits were much enlarged, and moreover had margins of tumid and reddened membrane, and were at their bases spotted with red, and asperous to the feel, instead of smooth as in health.

still the horse was not *cured* of his lameness, but broke down again five months afterwards, notwithstanding he was favoured at duty—which was at no times hard—as much as possible: the result, in fact, being much the same as we should have looked for in a case of patched-up disease of the navicular joint. From this, and many other similar cases, I cannot therefore help coming to the conclusion that disease of synovial membrane is *occasionally* present at a very early period: whether early enough to *precede* the exostosis is another question.

Mr. Goodwin, in the course of the discussions to which his paper—I have made the foregoing extracts from—gave rise, expressed his opinions to be, that "spavin generally *commences* between the two cuneiform bones," and that the disease, from its commencement, consists in "inflammation and ulceration of the synovial membrane:" exostosis being, he thinks, "a subsequent affair;" unless it be in the case of "*common* spavin," and that from the beginning "was an exostosis*." It being an acknowledged fact that in ordinary cases of spavin, accompanied by lameness, exostosis is either actually present or speedily makes its appearance afterwards, which exostosis is of the *high* description, and it also being ascertained that the callus of the exostosis is of that inflammatory nature which must cause pain, for my own part, I am disposed to think that, in the early stage, inflammation of the periosteum and consequent effusion constitutes the sole disease; but that, no sooner are the cushion or two large cuneiform bones cemented together by effused callous or osseous matter than from the concussion these bones in their fixed state must necessarily experience, bruise giving rise to inflammation ensues, and this lays the foundation for the ulceration and caries which follows. In the case wherein no exostosis—no spavin—is detectible, it would seem as though synovial disease had been set up in the first instance, and without such ascribed concussion: it must be remembered, however, that—as I stated before—callous or osseous matter may be deposited upon the surfaces of the cushion bones in situations where, from being covered by ligament and tendon, and other soft parts, it is not to be discovered either by eye or hand; as indeed proved to be the case in one (if not both) of the hocks of the valuable horse belonging to our late Sovereign, whose history is related by Mr. Goodwin, as copied by myself at page 302. Could post-mortem examples be brought forward of disease of joint without any concomitant callous or osseous incrustation, and consequent fixing together of the cushion bones, it would of course go to shew that

* By *common* spavin, I take it, Mr. Goodwin means the "knot" or knob of bony deposit before alluded to.

the disease of spavin might have its *beginning* within the capsular ligament of the hock joint. That in all cases of inveterate and incurable spavin the synovial membrane is the seat—the main seat—of disease, and that this is the principal reason why all our known means of cure fail, is a fact beyond all doubt or dispute: at the same time, the supposition that the disease, although attended by lameness in its early stages, may and frequently does consist in pure exostosis, will account for the fact of cases of spavin, when timely and effectively treated, occasionally admitting of recovery.

There is another fact to which I would call attention, from the circumstance of its appearing in corroboration of the disease of spavin having its commencement outside the joint, and making its progress into the inside. If we examine the cuneiform bones of a spavined hock after maceration, we shall perceive that the caries which their surfaces exhibit has evidently commenced upon their *inner* parts—that it has, to appearance, spread from the exostosis outside upon the articulating surfaces inside the joint; it very commonly happening that the outer parts of the same surfaces remain in a sound state. Again, I have at the present moment another preparation of the bones of the hock before me in which the two cushion bones are inseparably united along their front sides by ossification; and yet so smooth are their exterior surfaces, that no spavin, or the slightest vestige of one, would be discoverable in the living subject. Such is a true case of *occult, concealed,* or indiscoverable spavin.

Although the diseases inside and outside the joints are different at their commencement, one consisting in inflammation and ulceration of a delicate membranous tissue—the synovial membrane—while the other consists in inflammation followed by ossification of fibrous or fibro-cartilaginous substance, yet in the end do both diseases merge into one and the same morbid action of ossification, tending in its progress to the cementing and fixing of parts, once moveable upon one another, together, and in the end converting the entire mechanism of the joint into one solidified diseased structure, coated inside and out with porous rocky osseous deposit. And not only does the hock itself suffer, until every joint constituting it has become carious and ossified—the articulation between the tibia and astragalus being the last to contract the disease, hence the reason, as I said before, of spavined horses being able, lame as they may be, to work on—but parts in the immediate vicinity likewise catch similar disease, among which the ligaments at the back of the hock joint, and the suspensory ligament at its place of origin, are the most commonly so affected.

VARIOUS PATHOLOGICAL CAUSES FOR THE LAMENESS IN SPAVIN, it is evident, therefore, admit of demonstration. It was formerly

thought that the main or only cause for the pain was the distention of the periosteum by the tumour underneath it, the same as is said to happen in the case of *nodes* in the human subject. I would not go so far as to say a case of this description never happens; but I should certainly lay it down as my opinion that the stretching of the periosteum was by no means so frequent a cause of the pain or lameness in spavin as others that I will mention. The exostosis, in a state of partial or entire callus, is itself in certain stages in that inflamed condition that it is but natural to suppose *it* must be the seat of considerable pain. And then there is to be taken into the account the chief source of pain, as it must be acknowledged to be, of all, when it is present, and that is, the inflammation and ulceration and caries of the joints. And, further, what operates against the theory of the distended periosteum is the fact of low spavin or hind splent, "knots" upon the hock, as they are called, rarely giving rise to lameness; though they are calculated to put the periosteum on the stretch quite to the same degree as true spavins. One argument, however, there exists in favour of the distention of the periosteum, and that is, the asserted fact of lameness having been known to be relieved—some say *cured*—by division of the stretched membrane, an operation called *periosteotomy*, whereof it will become my business to speak hereafter.

REMARKS ON TETANUS.

By G. B. S. Leff.

Knowing that you must take pride and delight in our profession, I think it my duty to inform you of every peculiar circumstance that occurs in my practice. Blaine says that tetanus is idiopathic and symptomatic, and that *idiopathic* is much the most frequent. Now I have had thirteen cases in my own practice within seventeen years, and every one case was symptomatic. It appears that an injury done to the spine is the most likely to produce it. I cured three cases out of the thirteen by the application of cold water, being previously kept hot. Bleeding seems to do harm. Several of my cases were from falling down:—

1. Pony fell down and broke the knees.
2. Horse cut foot with stone, point of frog.
3. Horse pricked by blacksmith.

4. Horse fell down in cart, cut shoulder.*
5. Mare fell off mow at harvest time; nothing to be seen.*
6. Mare fell down with a load; nothing to be seen.
7. Colt fell down backwards while catching it.*
8. Colt thrown down, and castrated.
9. Pony fell down, and broke the knees.
10. Mare, after taking the horse.
11. Pony fell down; nothing to be seen.
12. Pony jumping off a high bank.
13. Horse fell down with a load; cut shoulder.

All these cases came on about fourteen days after the accidents, except the mare taking the stallion, which came on in a few hours.

The last case I had was about a month ago. The tetanic affection terminates about the ninth day.

The horse with the broken jaw goes to work; the bone and teeth are a little loose. There seems to be a kind of fungus formed around the broken part, a thickness of the periosteum and buccal membrane, which looks just like an intestine tied in a knot. A large muscular ring round the bone. I used to tie her head up with three cords, so as to prevent her touching the ceiling, sides and floor, and let her loose at night with a muzzle on. I think the end of the maxillary bone will slough away†.

ON THE PATHOLOGICAL HISTORY OF GLANDERS.

In one of the volumes recently issued by the Sydenham Society, there is a translation from the German of the valuable work of Professor Hasse, of Zurich, on the Pathological Anatomy of the Organs of Respiration and Circulation. In this there appears an interesting section on "Glanders in the Human Subject;" and as it contains a faithful and succinct account of the morbid changes induced in the different tissues affected by this loathsome and fatal disease in man, and, by zootomic similarity, in those of the lower animals in which it has also been manifested, we deem a full abstract of its contents as worthy of being recorded in our pages, for the general benefit of the veterinary profession.

Professor Hasse, in the first place, states, "that many medical men of eminence, more especially the members of the Parisian Academy, have questioned the fact of the contagion of glanders

* These I cured by cold water.

† Perhaps Mr. Leff—are we correct in the name?—will at its conclusion favour us with the particulars of so interesting a case.—*Ed. Vet.*

between the horse and the human subject; but this has been proved to a demonstration." For confirmation of this, Professor Hasse adduces the following facts:—"First, that the disease has only been known to assail individuals previously in contact with glandered horses; secondly, that the organic changes resemble those of genuine glanders in the horse in every respect; and, thirdly, that direct experiments shew, that solidungulous animals may be inoculated with glanders by means of fluid taken from the parts so diseased in the human subject."

With these general facts we most fully and perfectly concur; for it has happened in our own experience to observe glanders in the human subject produced by direct inoculation from the horse, and followed by similar pathological changes in the Schneiderian membrane, and in that of the cranio-facial cavities, that were observed in the same structures of the animal whence the virus had been obtained. We have not seen, however, the converse experiment of inoculating from man to the lower animals; but of the fact, by analogy, there can be no doubt.

Professor Hasse then gives an excellent bibliography of the papers already known on this strange disease in reference to man, from that of Schilling, in 1821, until those of Rayer, in 1837, though he does not mention that the "father of medicine had observed it in Cos in his time."

In reference to the tissues primarily affected, "Glanders," says he, "has its principal seat, both in man and in the horse, on the one hand in the nostrils and adjacent cavities, from whence it descends into the larynx, and even to the more distant respiratory organs, and, on the other hand, on the various parts of the cutis. The affection of the Schneiderian membrane sets in early, between the fourth and eleventh day, judging from the dribbling at the nostrils. The eruption on the skin does not break out before the twelfth day of the disease.

"In every case, the Schneiderian membrane is more or less extensively swollen, inflamed, and destroyed by (chancry) ulceration or sloughing, so that the cartilage and bones become exposed. Adjacent to the mucous membrane there is serous or purulent infiltration, and occasionally bloody ecchymosis. Now and then it is the seat of various kinds of eruptions, assuming the form either of lentil-sized pustules, grouped together on a swollen and red inflamed ground, and containing a yellowish mass, resembling boiled white of egg, intermingled with pus-globules, or of numerous scattered vesicles filled with pus; or, again, of a congeries of little tuberculate bodies, varying in size from that of a pin's head to that of a lentil. The same appearances are traced into the frontal sinuses, into the cells of the ethmoid bone, and into the maxillary

and sphenoid sinuses. The entire surface of the mucous membrane secretes a thin ichorous fluid, or becomes covered with a tenacious discoloured mucus, beneath which it is rough, as if eroded. Sometimes the mischief stops short at the upper apertures of the nostrils. For the most part, however, it advances beyond, producing analogous pathological appearances on the arch of the palate, the tonsils, sometimes on the tongue, and at the other parts of the mouth, at the entrance of the Eustachian tubes, and in the pharynx. In almost all cases, the epiglottis and its vicinity, as well as the upper portion of the larynx, and sometimes the trachea, are affected. The larynx exhibits the same alterations as the nostrils, viz. inflammatory redness, ulceration, and pustular development. In the trachea these are restricted to separate patches of inflammation, to the formation of small vesicles, and to a layer of tenacious puriform mucus.

"In many instances the lungs are sound, while at other times they are unusually loaded with blood, or affected with lobular or diffuse inflammation; or they present, subjacent to the pleura, superficial abscesses or ecchymoses. The mucous membrane of the bronchial tubes has, generally, a florid appearance.

"The mucous membrane is prone in this disease to various forms of eruptions, resembling varicella, ecthyma, or small furuncles. Two distinct forms are cognizable, the one, pustular, being the most constant; the other vesicular, present, if not in all, at least in the majority of cases. The pustules come out upon the anterior surface of the body, especially on the face—next in frequency on the chest and extremities. They attain the size of a split-pea and upwards, and occur either singly or in groups, upon an indurated base, surrounded by a dirty yellow, livid, or dark red areola. At first, they contain merely a plastic, yellowish-white substance, not only deposited beneath the epidermis, but also imbedded, as it were, in an opening in the corium. As the disease advances, the contents of these pustules soften and become transformed into pus, which perforates the summit of the pustules, and dries into a scab on exposure to the air. Underneath this scab suppuration generally goes on, until an ulcer is produced. These pustules by no means break out simultaneously or equably, but are found scattered in every stage of development. The vesicular predominates in situations where the external skin is disposed in folds or wrinkles, but at a later period in other localities. The vesicles are of various sizes; some attain fully the diameter of a half-crown piece: their circumference is livid, or almost black; they contain a serous, dingy-red, or thin puriform fluid. They soon burst, or are rubbed off, and leave a gangrenous, copiously secreting

spot, at whose borders smaller vesicles arise of the same type and form.

"Suppuration occurs beneath the skin and betwixt the muscles, and both beneath and within the periosteum. Here, likewise, different grades of morbid deposition are perceptible. In a few instances, more or less extensive ecchymoses are present; in others, effusion of limpid or turbid serosity; in others, again, a jelly-like mass. For the most part, however, there are differently sized abscesses, either terminating abruptly in healthy structure, or else surrounded by sero-purulent infiltration within softened texture. The pus itself often appears laudable, on other occasions ichorous, and as if mingled with decomposed blood and with dissolved tissues.

"Thorough contamination of the blood and other fluids is, invariably, evidenced by fœtor during life, and by rapid putrescence of the body after death. In the heart and vessels the blood is fluid, there being but little fibrinous coagulum deposited, whilst there is tumefaction and softening of the spleen, together with general imbibition of the tissues. The ecchymoses already alluded to, conjointly with similar ones in the mucous membranes of the digestive organs, seem, in a like manner, to denote the decomposition of the blood.

"The order of sequence of the several organic changes is tolerably uniform in different cases, appearing to deviate only according to the way in which the distemper has been contracted. Glanders seem to be conveyed from the horse to man in a twofold manner, namely, by *infection* and by *inoculation*. We are altogether in the dark as to the conditions that govern the former mode of propagation. Does abiding in the atmosphere of the diseased animals suffice? Is it that their exhalations operate upon injured portions of the skin, or upon the injured surface of the respiratory mucous membrane? In some cases there is no evidence of the morbid animal matter having come in contact with wounds of the skin in persons attacked. At present, therefore, we are compelled to assume general infection, apart from contact, inasmuch as the local affection on those occasions was invariably preceded by constitutional ailment, referrible to no other obvious cause, and nowise differing from any other violent eruptive fever. In the majority of cases, however, the disease is traceable to *inoculation* with the virus. The patients have either allowed abrasions of the skin to come in contact with the nasal secretions of the horses they are tending, or had wounded themselves whilst occupied in skinning or cutting up the dead animals. Here the disease dates from the moment of inoculation, and the progress of the supervening organic changes could be pursued anatomically. Thus, when

the finger has been injured, pain and swelling almost invariably set in within a very brief interval, followed by red streaks and retiform spots along the skin.

"The lymphatic glands at the bend of the arm and in the axilla become painful, and partially suppurate; in short, all the consequences of inflammation of the absorbents ensue: occasionally, the marks of phlebitis are apparent.

"The original wound turns either to an ill-conditioned sore, or else healed up for a time, and then bursts open afresh on the period of incubation terminating.

"However the disease may originate, it makes rapid progress, usually proving fatal within a fortnight or three weeks. It becomes chronic only when complicated with farcy, and contracted by inoculation from horses labouring under like complication.

"The symptoms of farcy, namely, cutaneous eruptions and ulcers, together with abscesses in the subcutaneous cellular tissue, and between or in the substance of the muscles, gradually spreads from the injured parts over the entire limb, and ultimately over the rest of the body. Glanders then supervene, with concomitant fever, and the trains of disturbance above described.

"In Rayer's Researches it is shewn that simple farcy is equally communicable to man, and destroys life both in its acute and its chronic stage.

"Both in glanders and in farcy, whether acute or chronic, it is sometimes no easy matter to determine, either from the history of the case or from the results of dissection, whether some of the appearances, as lobular pneumonia, purulent deposits within the lungs, muscles, joints, &c. be not rather due to simultaneous inflammation of the lymphatics and veins, with absorption of pus into the circulation, than to the original disease. Sometimes the returning vessels have been found perfectly healthy,—in some few instances decidedly inflamed,—and in many their condition does not seem to have met with due consideration and attention.

"Recently, Engel* has contended against the possibility of the transfer of glanders from horse to man; and seeks to prove, by the aid of numerous skilful dissections of glandered carcasses, that the disease is identical with tubercular mischief. The rise, progress, and termination of the local affection, the form of the ulcers, and many other circumstances, certainly offer many points in support of such an hypothesis."

This tubercular hypothesis we consider but a very approximative one, seeing that the special semiology of glanders and tuberculosis is very dissimilar.

M.

* Oesterreich, Medicinische, Wochenschrift, 1842.

A LETTER FROM MR. MAYHEW

IN REPLY TO MR. BARLOW'S PAPER IN OUR LAST NUMBER.

To the Editors of "The Veterinarian."

Gentlemen,—MR. BARLOW, of the Edinburgh Veterinary College, addressed a letter to THE VETERINARIAN which appeared in the last number of your Journal. The writer must excuse me when I say I cannot comprehend the object he had in view when he put pen to paper. In the first place, his observations are obscure, deficient even in those essentials of language which few of the inhabitants of the north venture to neglect. Grammar is especially valuable where controversy is invited; and when criticism is attempted, words should be employed with a knowledge at least of their popular meaning. From Mr. Barlow's position, I am willing to believe that he is rather careless than ignorant, but his language is such as disables me from answering his assertions, or from replying to his opinions.

When I venture to make such a statement, Mr. Barlow's acknowledged talent renders it imperative I should support it by reference to fact. Did I appeal to the paper in which my name so frequently appears, it might be thought that personal feeling had influenced my judgment; and, to avoid any such suspicion, I will allude only to a treatise which was published in the *Farmer's Magazine* of January last, and I will proceed no further than the heading to that paper to establish the fact:—"ESSAY ON EPIZOOTIC PLEURO-PNEUMONIA AMONG OXEN AND COWS. By JOHN BARLOW, jun., V.S., Anatomical Demonstrator, &c. at the Edinburgh Veterinary College, which obtained the prize given by the Farmers and Graziers' Mutual Cattle Association."

I will make no comment on the obvious errors; for though I have not the pleasure of personally knowing Mr. Barlow, that gentleman's reputation has created in my breast a feeling of respect which hasty words or simple verbal mistakes cannot entirely destroy. He must, however, pardon me when I say that the carelessness of his style precludes the possibility of my replying fully to his statements, because I cannot venture to believe that, in the majority of the sentences he employs, his words represent his meaning.

So far, however, as I can guess at that gentleman's meaning, I am anxious to afford him every information in my power. He appears to be hurt that I was not aware of the extent of his knowledge. I entreat him to believe that there was no intent on my

part to undervalue his acquirements; but the distance which separates us, and his silence on these matters, rendered me unable to appreciate his learning. That he had seen what I discovered without his assistance, I never meant to assert or to deny. That he knew that which I learnt myself, I did intend to imply or to contradict. He may know much of which I am still unfortunately ignorant, and I shall be most happy—if he could be induced to publish the results of his researches—to become his pupil, and honour my preceptor for the benefit I may derive from his teaching. Let him declare it, and I am not too proud to acknowledge his superiority; but I have no mysterious power of fathoming the brains of absent individuals, nor are my ears so long that they can catch words uttered hundreds of miles from the spot where I exist. What is known at Edinburgh, unless it is published, may for centuries remain unknown in London; and unless Mr. Barlow will oblige mankind by communicating his knowledge through the press, others may, like myself, fall into the error of conceiving him to be as ignorant as the inhabitants of the metropolis.

Mr. Barlow, in self-justification, should not now remain silent. He is above the old practice of claiming every discovery that another makes, and seeking to depreciate by the hackneyed application of the foolish assertion, "*that was known before*," when any thing new is pointed out. I am most desirous to believe that he knew all I "hazarded;" but for his own sake it is necessary that he should substantiate the fact by adding to the little I have brought forward. The subject is not exhausted; and if, instead of dwelling on such common-place matters as the Ligamentum Nuchæ, and the yellow elastic aponeurosis of the external oblique, he could be induced to enlarge upon some of the mysteries now known only to himself, he would greatly oblige me, and by no means injure his own reputation.

The gentleman appears surprised that I should imagine certain things had not been "hitherto observed," though he admits that no allusion to these is to be found in works on anatomy. The surprise Mr. Barlow expresses is natural to one whose advance in science has long enabled him to dispense with books, and to look upon ordinary knowledge with contempt. I am happy Mr. Barlow can assume such a position, and am not inclined to dispute or question his right to occupy it. It is, nevertheless, a little unkind for the learned to sneer at the ignorant. Where I write the world is still rather backward; and however much may be familiar to Mr. Barlow, the anatomical facts I ventured to allude to have by the people here, who call themselves scientific and reside beyond his favoured sphere, been honoured with attention, as though something new was contained in my statements. The Medical Press, when noticing the work in which my paper appeared, have mentioned that paper

with commendation, and even gone so far as to extract from it certain passages into their pages. As I consider the editors of such works men of judgment and information, I could feel proud of the honour their notice has conferred, had not Mr. Barlow given me reason to doubt whether any credit belonged to me, he having been familiar with the facts so long, that they, in his eyes, had ceased to be novelties, and assumed the character of "common places." He must not continue his silence, or some one else may fall into a similar error to that by which I am engulphed, and other writers may infringe upon the property in knowledge which this gentleman seems to have acquired.

There is, however, a higher branch of science than that of anatomy. The ability to think is superior to the power to see, and the head is above the scalpel: Mr. Barlow cannot, after he has acquired such ample information concerning matters hitherto considered by the generality somewhat obscure, be ignorant of this. Yet he puzzles me when he appears to be so very cute and sensitive with regard to anatomy, and so indifferent or easily satisfied concerning physiology.

"Against the ideas themselves expressed in the essay I have not any material objection to make."

"I have little to say additional to what is expressed by Mr. Mayhew."

"Mr. Mayhew's remarks on the way in which he accounts for the obviation of traction are judicious."

Sentences like to the above would warrant the notion being entertained that Mr. Barlow, who, concerning the purpose and object of a paper, had no material objection to advance, little to add, and perceived what was asserted to be judicious, might have remained content and continued silent. So, doubtless, he would have done; but a kindly feeling made him anxious to rebuke the boldness of one who ventured to speak when he had "nothing positive" on some points "to advance;" and was foolish enough to think that what no one had publicly remarked upon might probably have been "hitherto unobserved." Mr. Barlow is, I conjecture, offended that I have not supported my opinions by more facts; but those writers who have a multiplicity of cases ready to illustrate their views are more likely to get credit from the intelligent for invention than respect for veracity. However, I acknowledge the matter Mr. Barlow seems most to dislike is imperfect; and as he has such a fund of experience, let him, out of his accumulated stores, oblige me, and surprise the world by munificently supplying the deficiency.—I have the honour to be

Your very humble servant,

EDWARD MAYHEW.

A CASE OF PARTIAL PARALYSIS IN A BAY COB.

By J. WOODGER, *V.S.*, 14, *Market-street, Paddington.*

ON the 30th of March last, a bay cob, seven years old, belonging to Mr. Jos. Nicholls, of Paddington-wharfs, was driven a distance of twelve miles from town, returning with four people in a light cart, doing the twelve miles (as the owner informed me) within an hour, while raining the greater part of the way, which appears to me to be the cause of the malady I am about to describe. On the following morning, as the owner went to the stable, he found that his horse could scarcely be made to move: he had him bled, and, the next morning being still worse, my attention was directed to him.

April 1*st.*—*Symptoms.* The animal standing, leaning with his off side against his box, with his near fore leg abducted as much as possible — neck drawn towards the off side — pulse 44 per minute—membranes blanched—the legs and surface of the body colder than natural—appetite good.

Treatment.—Gave sol. of aloes ʒvii, ext. bellad. ʒjss—applied a blister of ungt. canth. on each side of the neck, and ordered his body to be clothed and legs bandaged, and a person to stay with him to feed him with bran mashes and a little meadow hay. As he could not move without falling, slinging became necessary, but, from the low, ill-constructed state of his box, such was impracticable; neither was there any convenient place near there where he might have been removed for that purpose, therefore I was left to use the best means I could.

2*nd*, 6 o'clock, A.M.—Animal down, and unable to rise without assistance—pulse 48. Medicine not operated. Give enema of warm water, and repeat blister to the neck.

5 o'clock, P.M.—Medicine operating. Ordered him to be kept perfectly quiet.

3*d*, 6 o'clock, A.M.—Still down, and very weak. Had him placed upon his legs, in which position he remained for several hours, leaning his off side against his box: pulse 66, but weak. Give a ball composed of strychnia 1 gr., with gentian and common mass.

5 o'clock, P.M.—Pulse 70; respiration slightly increased, and a wild staring countenance. Repeat ball as in the morning.

4*th*, 7 o'clock, A.M.—Still down, but could be made to rise with less assistance; pulse 74, but scarcely perceptible. Give strychnia 2 gr. Repeat ball in the evening.

5th.—He got up this morning without assistance for the first time; pulse 72, and very irregular in their character, which I attributed to the effect of the strychnia. Repeat the strychnia 2 gr.

5 o'clock, P.M.—Pulse 70; the animal improving. Repeat ball.

6th, 7 o'clock, A.M.—He was standing and feeding, as I would desire; his appetite had been very good throughout his illness: he could now move across his box, though reeling and dragging his hind quarters: pulse 66, and more regular in character. Repeat strychnia 2 gr., with aloes 3ji, as his bowels were a little costive.

He gradually improved up to the 15th, under the same treatment, but I reduced the strychnia to 1 gr. twice a-day on the 10th, and for the last three days gave only one ball a-day. From the 12th he was able to take a little exercise, and on the 15th I discontinued the strychnia and gave tonics for a few days, with liberal diet; and on the 27th his owner put him to slow work, at which he has continued up to the present time; but he still reels a little at times, and inclines his head to the off side. I have had several similar cases previously, but the majority of them have not been rendered useful again, or to perform much exertion. Should you have a vacant leaf in your valuable record for these rough remarks, you will much oblige

Your's, &c.

HONOURABLE HORSE DEALERS.

To the Editors of "The Veterinarian."

In The Veterinarian of last month an instance is mentioned by Mr. Horsburgh of a horse being returned to a horse-dealer in consequence of his certifying the unsoundness of the animal, on which the money was immediately refunded. Mr. H. states it to be the first case of the kind that ever occurred in his practice, which certainly does not speak very favourably of the honesty of the dealers Mr. H. has had to do with. I beg, however, to state, that I have met with *many* instances of the kind, in which, on my certifying the unsoundness of the horse, the money has been immediately returned by the dealer, and I cannot consider the case so rare as he thinks it. There are, I believe, both knaves and honest men in every profession and every business, and there are many honourable men who follow the business of horse-dealing.

W. C. Spooner.

Southampton, May 16, 1846.

STATEMENT OF THE CASES OF DISEASE AMONG DOMESTICATED ANIMALS OCCURRING AT THE EDINBURGH VETERINARY COLLEGE,

From the 1st to the 30th of April, inclusive.

By Professor Dick.

Disease.	Number of Cases. Horses.	Neat Cattle.	Dogs.	Deaths. Horses.	Neat Cattle	Dogs.
Abscess, in various parts ...	4	...	...	...	...	...
Anasarca	2	...	...	...	...	...
Carbuncle	...	1	...	...	..	...
Castration	1	...	...	...	...	...
Catarrh and Influenza.....	14	...	...	...	...	...
Choking.....	...	...	1	...	...	...
Colic.....	13	...	...	...	...	...
Constitutional Debility	4	...	...	...	...	...
Curb	2	...	...	...	...	...
Diabetes	2	...	...	...	..	...
Distemper	...	...	6	..	...	2
Docking.....	1	...	...	...	...	...
Dysentery	...	...	1	...	...	...
Enteritis	1	1	...	1	1	...
Epizootic (vesicular)	...	3	...	...	...	...
Eyes, Diseases and Injuries of	7	...	...	...	...	...
Examinations as to Soundness.....	36	...	...	...	...	...
Examinations as to Pregnancy	2	...	...	...	...	...
Farcy	1	...	...	...	...	...
Farcy with Glanders.....	2	...	...	2	...	..
Feet, Wounds and Bruises of,	19	...	...	...	...	...
Canker in	2	...	...	...	...	...
Corns in.....	2	...	...	...	...	...
False Quarter in	3	...	...	...	...	...
Navicular Disease in.....	9	...	...	..	...	...
Quittor in	4	...	...	...	...	...
Thrush in	3	...	...	...	...	...
Fistulæ and Ulcers	5	...	...	...	...	...
Glanders without Farcy ...	2	...	...	2	...	...
Grease	2	...	...	...	...	...
Heart, Disease of	2	...	...	1	...	...
Hysteritis	...	1	...	...	...	...
Indigestion	6	1	...	...	...	...
Jaundice	...	1	...	...	...	...
Lameness in Elbow	1	...	...	...	...	...
Ditto in Fetlock	2	...	...	...	...	...
Ditto in Knee.....	4	..	...	...	...	...
Ditto in Hip	3	...	...	...	...	...
Ditto in Pastern	5	...	...	...	...	...
Ditto in Shoulder.....	3	...	...	...	...	...
Ditto in Stifle.....	4	...	...	...	...	...
	173	8	8	6	1	2

Disease.	Number of Cases. Horses.	Neat Cattle.	Dogs.	Deaths. Horses.	Neat Cattle.	Dogs.
Disease brought forward	173	8	8	6	1	2
Mammitis	...	1	...	...	...	...
Palsy (of one side of the face)	1	...	...	...	...	...
Phlebitis	1	...	...	...	...	...
Placenta, Retention of	...	1	...	...	...	...
Phthisis	...	1	...	...	1	...
Pleurisy, Pneumonia, and Bronchitis	6	12	2	...	4	1
Puerperal Fever	...	1	...	...	...	...
Rheumatism	...	1	...	...	...	...
Roaring	1	...	...	...	...	...
Strangles	1	...	...	...	...	...
Spavin, with Lameness	4	...	...	...	...	...
Splint, with ditto	4	...	...	...	...	...
Skin, Diseases of	4	...	1	...	...	...
Sprains of Tendons, Ligaments, &c.	9	...	...	...	...	...
Stomach and Intestines, Distention of from Food and Gas	1	...	...	...	...	...
Teeth, Diseases of	4	...	...	...	...	...
Weed	3	...	...	...	...	...
Worms	2	...	...	...	...	...
Wounds in various parts except Feet	21	...	...	2	...	...
	235	25	11	8	6	3

General Abstract.

Cases among Horses	235	Deaths among Horses	8
„ Neat Cattle	25	„ Neat Cattle	6
„ Dogs	11	„ Dogs	3
„ Total number	271	„ Deaths	17

The case of carbuncle in a cow being one of a somewhat rare character, may require a few remarks.

Assistance was applied for to a well-bred Ayrshire cow on the 19th of April, when the following symptoms presented themselves :—There was an irregular but very large swelling, occupying the space between the last rib and the crest of the ileum on the near side, and extending over the spinous processes of the lumbar vertebræ to the off side, and also reaching some distance over the left iliac region. The central part of the tumour was situated about the middle of the left lumbar region, and the swelling, taken as a whole, was larger than a person's head. It was very hot, extremely painful, and hard, except towards the outer side, where there was a small opening, from which, however, there was not any discharge.

On inquiring into the history of the case, the owner said, that about four weeks previously he had squeezed a "warble" (the larva of the *œstrus bovis)* from the back of the animal through the opening alluded to, and since he had done so, there had been a gradual swelling of the adjacent parts, which had, by the time she was placed under treatment, attained such a size, and had interfered so much with the general health of the beast, that apprehension *was entertained for her safety.* During the time that the swelling had been forming no remedial means had been employed to counteract its progress, so that the skin, in addition to being rigidly stretched over the tumour, had become dry and hard. Emollient applications and poultices were applied for a day or two, but these did not produce any other effect than that of merely softening the skin, and as there were no signs of fluctuation, and as the tumour continued to increase in size, and materially affected the health of the cow, it was deemed advisable to make several free incisions through the skin and lumbar faschia, in order to relieve the deeper seated parts from the pressure under which they were suffering. Nothing but blood, and that not in large quantity, came from the openings made, and the poultices were again employed. When this course of treatment had been adopted for little more than a week, there was an appearance of sloughing round the original wound or opening; the tumour had become much less tense and painful, and although its apparent size had not perceptibly diminished, yet the cow was much livelier, and fed tolerably well. In a few days more a piece of skin, about four inches in diameter, had so far become detached as to be easily removed, when a large effusion of lymph was seen lying between the skin and lumbar faschia. The lymph was taken away with the hand, when several imperfectly suppurating points were seen on the surface of the faschia, which was tightly spread over the swelling underneath. Several long and deep incisions were made through the faschia in various directions into the swelling, but a very inconsiderable quantity of matter escaped, and that which was evacuated did not present the appearance of healthy pus. The wound or sore thus formed was now dressed with nitric acid lotion and digestive liniment. For a while the discharge was of a fœtid character, and the healing process tardy; but by this time (May 15th) all the parts have assumed a healthy character, the swelling has very considerably diminished, and the size of the sore has materially decreased, so that, according to present appearances, in another fortnight or so, the healing process will probably be completed. The health of the cow is quite restored, and she yields as much milk as before the disease made its appearance.

The case of hysteritis occurred in a white short-horned cow, the

property of a dairy-keeper. She had been unwell for some days previously to the 16th of April, when application for assistance was made here by the owner. She had calved about a fortnight before, but had not cleansed perfectly, and although no part of the placenta could be seen externally, yet, from the fœtid nature of a discharge which came from the vagina, it was evident the placenta had decomposed internally. There was almost continued straining, and when the animal evacuated the fæces or the urine, the straining action was immediately excited. The discharge from the uterus, although continuous, was most abundant after the acts of urination, and consisted of a brownish fluid, containing flakes of a whitish matter, approaching somewhat to the character of pus. There was considerable constitutional disturbance, as evinced by quickened breathing, irritable pulse, loss of appetite and rumination. Pressure on the right side seemed to give the animal considerable pain. The treatment adopted consisted in injecting tepid water from time to time into the vagina and uterus, with the internal administration of, first, an oleaginous laxative combined with laudanum, afterwards opium and camphor, as the case seemed to require. For some days after commencing this treatment, there was little obvious improvement, and although the disease in the uterus was eventually arrested, the cow, when near convalescent, was seized with pleuro-pneumonia, and died.

The case of retention of the placenta occurred in an aged cow, and although not characterised by any thing particularly rare, may deserve noticing. She calved on the morning of April 3d, and, instead of cleansing within the space of a few hours, suffered much during that time from after-pains, and, towards evening, commenced to strain with great violence, as if in labour, so that the owner was afraid the uterus would be thrown down. On seeing her late at night, the pains were extremely violent, and several persons were found endeavouring to keep in the calf-bed, which, they said, had several times made its appearance. Immediate aid was evidently called for, in order to avert the injurious consequences likely to result from a continuance of the violent straining efforts the cow was making, and as the placenta was, in all probability, the cause of mischief, it was resolved to attempt its removal. The hind parts were accordingly elevated, the back was pinched violently in order to prevent the straining, and the hand was introduced for this purpose. On passing the hand round the external part of the placenta, it was found adherent a little anteriorly to the os uteri, and so firm was the attachment, that nothing but a great degree of force could have brought it away. It was, therefore, thought best to let it remain until the following day, and to employ, in the mean time, measures in order to overcome the violent

straining efforts. A large dose of narcotic medicine and oil was given, and by the aid of bandages so secured to the body as to pass tightly over and on each side of the organs of generation, the animal was effectually prevented from throwing down the uterus. Considerable mitigation of the pains followed in the course of an hour, and during the night they almost disappeared. Next day the removal of the placenta was again attempted, and by passing the hand and arm with some degree of force several times round its external surfaces of attachment, at the same time applying a drawing force to that part of it seen externally, it was perfectly removed. So far as the uterus itself was concerned no unfavourable consequences resulted, but in a few days the cow was attacked with acute mammitis, attended by considerable sympathetic fever. Although every attention was paid to this, it proved an obstinate case, and at the present time (May 15th), after having suppurated extensively, it has not yet recovered.

One of the cases of death from wounds occurred in a well-bred gray mare, the property of a job and post-master in town, who had lent her out on the 4th April to a gentleman who was going into the country for the day. Before he had got out of town, the shaft of a vehicle which was across his path came in violent contact with the side of the mare, entered the abdomen, and passed obliquely forward in the direction of and wounding the diaphragm. The mare died in the course of the afternoon.

The other case of death under this head was also one arising from a wound in the abdomen. A horse coming down the declivity of a little mound fell in a heavily loaded cart in which he was working. He struggled violently when down, and in doing so, the right iliac region came upon one of the hooks on the shaft, which inflicted a wound through the skin and abdominal muscles, so that a knot of intestine protruded. After getting him up, he was brought here. It was requisite to cast him, in order to return the intestine, and to secure the external wound; in doing so, from the struggles the animal made, the wound into the abdomen became enlarged, and the intestines were forced out in larger quantity. They were returned, the wound secured with stitches, and a broad roller was passed tightly round the body. Active peritoneal inflammation, however, taking place, it was found necessary to destroy the horse.

The case of disease of the heart, which terminated fatally, occurred in a horse belonging to a railway carrier. He was brought here on the 20th April. On the morning of this day he had been working in the waggon, where he was first observed to be unwell. He had stopped suddenly several times when working on the road, and appeared in danger of falling. There was little appearance of fever, and he had fed well on the morning alluded to. The pulse

was quick, and very irregular in the arteries: the heart's action was also irregular and intermittent, and, on applying the ear to the left axillary space, a peculiar loud rushing sound was heard, in all probability arising from valvular disease. After a few days' rest, and a dose of laxative medicine, he seemed so well that the owner sent him to work, when he suddenly dropped down and died. No notice of his death was sent here, until one of the men happening to come with another case ten days afterwards, said that the one just described had terminated fatally: no post-mortem examination could therefore be made.

The circumstances attending the case of distention of the stomach and intestines from food and gas are as follow:—On the 22d April, a well-bred bay gelding, belonging to a gentleman in Queen-street, was heard by the policeman about 4 A. M., making a great noise in the stable. The groom was called: he found the animal suffering great pain—lying down, rolling, and rising again—striking his belly with his feet, and tossing himself about with great violence—frequently sitting upon his haunches—the pulse was quick, and the abdomen swollen. He was bled—had laxative and sedative medicine—the belly was well bathed with hot water, and clysters were plentifully thrown up. In two hours, as little mitigation of the symptoms was to be seen, more laxative medicine in solution was given, and a stimulating embrocation applied to the abdomen. Clysters, although still continued, did not promote the passage of the fæces. In about other three hours, additional sedative medicine with oil was given—fomentations of very hot water were applied to the whole surface of the abdomen—and tobacco smoke injection was copiously used. He was frequently back-raked, and when the hand was introduced as far as possible to do this, there was some difficulty found in passing the arm freely its whole length, and the obstruction offered seemed to arise from a displacement of some portion of intestine. Pressure was made against this by the hand and arm, which were, as far as possible, moved about in various directions: tobacco smoke injections were still persevered in. Evacuations of gas per anum occasionally followed, which seemed to give relief. During the remaining part of the forenoon and the afternoon, the pain gradually subsided, and at length the horse lay for some hours quite still, with the eyes closed as if sleeping. This case is mentioned, not as being particularly rare, but because one peculiar symptom, that of sitting upon the haunches, was so prominently seen. This symptom indicates several pathological conditions of an analogous character, in connexion with the digestive abdominal viscera, which conditions commonly consist in some mechanical obstruction, such as hernia, in every form; obstruction from dust-balls and calculi; overloaded stomach and intestines, with constipation

or rupture of any part of the intestines or stomach; yet, while all of these conditions frequently present this symptom, they are distinguishable from each other by other auxiliary symptoms. In the present case, these seemed to indicate existence of some accidental displacement, arising probably from the sudden evolution of gas caused by irregular feeding; and it was with the view of counteracting this, that directions were given to back-rake, and move the intestines about in the abdomen; and, although such an occurrence is rare, the chance of removing or overcoming any cause of obstruction is a sufficient reason for its cautious adoption. That caution and gentleness are necessary is evident from the fact that, by using undue force when back-raking, laceration of the rectum has taken place: this has also sometimes followed the administration of clysters, when improper instruments have been used, or when sufficient care has not been taken.

MR. BARLOW'S LETTER TO THE EDITORS.

Gentlemen,—At the foot of page 256, in your last number, you have appended a *note* stating that Mr. Percivall, in his "Anatomy of the Horse," has described the "yellow elastic fibrous tissue" to which I had referred, under the name of "*Faschia* Transversalis;" and has represented it to be of "essential service in sustaining the burden of dependent viscera."

In the "Anatomy of the Horse," pp. 127-8, Mr. Percivall's words are, "A careful incision through some of the posterior fibres of the transversalis, will disclose to view an expansion of faschia of considerable density and firmness of structure, which corresponds to a part in the human subject first described by Sir Astley Cooper, and by him named the *faschia transversalis*. It may be traced as an entire lining to the muscles of the abdomen; and is, from the resistance which it opposes (which is by no means inconsiderable) of essential service in sustaining the burden of the dependent viscera, in effecting which it reduces the demand for muscular action. Though it is an opening (removed a short distance inwardly from the external ring) called the internal abdominal ring."

Now, the faschia transversalis of Cooper, described also by Lawrence, Cruveilhier, Cloquet and others, does exist in the horse, and is found in the same corresponding situation as in the human subject; being seen, as Mr. Percivall says, by making a "careful incision through some of the posterior fibres of the transversalis" abdominis; but the *yellow elastic fibrous tissue* to which I alluded is widely different from *it*, both structurally and locally.

The *faschia transversalis* is situated between the peritoneum and muscles of the abdomen, the *yellow elastic fibrous tissue* is found between the skin and abdominal muscles: the latter structure has not any thing to do with the formation of the internal abdominal ring, but the *faschia transversalis* materially contributes thereto, and forms an infundibuliform process round the spermatic cord, being, in fact, one of its coverings. There is a total difference between the two, both in tissue, relation, and attachments. Mr. Percivall and I cannot be speaking of corresponding structures; nor do I find in Mr. Percivall's work any description which will apply to the *yellow elastic fibrous tissue* I casually mentioned in my paper last month.

I am, gentlemen, your's sincerely,

JOHN BARLOW, *V. S.*

Edinburgh Vet. College,
May 18, 1846.

*** By this letter, Mr. Barlow has made that perfectly clear which did not appear so to us in his original paper. The tissue he describes we consider to belong to the aponeurosis of the external oblique muscle.—*Edit. Vet.*

ANNUAL GENERAL MEETING OF THE ROYAL COLLEGE OF VETERINARY SURGEONS.

ON Monday the 4th instant, the third annual meeting of the Members of the Royal College of Veterinary Surgeons was held, in accordance with their charter, at the Freemasons' Tavern, Great Queen-street, Lincoln's Inn-fields.

At half-past one o'clock the chair was taken by the President, Mr. Thomas Turner, of Regent-street, about sixty of the members being then present.

The President, in opening the business of the day, said that was the third occasion he had had the honour to meet the members of the College, and had to congratulate them on having obtained a Charter of Incorporation, the objects of which were to further the interests of the veterinary profession. He felt that they ought to be most grateful to their Sovereign for having granted them such a boon. He could assure the meeting that the Council that had been appointed by the body of members had been most persevering in the performance of the arduous duties of their office; and sure he was that any other body of men would have found much difficulty in displaying greater talent than had been shewn by them in their exertions for the solid and enduring welfare of the

veterinary profession. He would venture to touch on the advantages that the Charter had given them, for they were of no ordinary kind. It was founded on the genuine principles of representation. He would also draw their attention to matters of deep importance to the profession; and when he had done so, he was sure they would one and all feel that they should put their shoulders to the wheel, for the purpose of obtaining those solid benefits which the Charter gave them. The Charter, however, of itself, could do nothing for them, but the obtaining it would, he had no doubt, be the stepping-stone to the getting of other and more solid immunities. (Hear, hear.) To attain that desirable end, they must all be one body—separate interests must be swept away—they must go hand in hand together, and be of one mind: their advantages would then speedily follow. Without the sinews of war they could not go on. No body, whether corporate or otherwise, could go on without means; and before that meeting broke up that day, they must begin a small annual subscription for the furtherance of the objects for which the College had been established. They must begin for posterity, and posterity would then sing their praises in future years for their having done so. He was sure that the example of every member of their community would shew the importance of their art. He would go much further in dilating on the benefits to be derived from the Charter; but they had many important matters to discuss, and he would therefore no longer occupy the valuable time of the meeting, but remind them that their first duty would be to elect six members of Council in lieu of the six gentlemen who went out by rotation, and he was quite sure that the members present would do so in that temperate and proper manner which all deliberative bodies ought to do.

Mr. Cherry thought that, before they proceeded to the election of the members of Council, the report of the proceedings of the College at the previous meeting should be first read. (Hear, hear.)

The President said that the advertisement calling the meeting clearly pointed out the course they were to adopt, which was to elect six members of Council.

Mr. Cherry still considered that the course he had pointed out was the proper one, and he would therefore move that the Report be read.

Mr. Daws seconded the motion.

Professor Dick supported the motion. He considered that, like all other deliberative bodies, they ought to have the minutes of the preceding year read to them: how could the general body of members otherwise know how the College was progressing?

Mr. Withers declared he was quite satisfied with the proceedings of the Council, and would therefore move that the business of the meeting be proceeded with.

Professor Dick still contended that they ought to act as all other deliberative bodies did. They ought to act like men of business. Was there, he would ask, any cause for secrecy? Had any thing been done by the Council "under the rose," that the minutes were not to be read?

The motion was then put and carried, and

Mr. Gabriel, the Secretary, read the minutes of the previous meeting. At their conclusion,

Professor Dick said he humbly considered that there was something wanting on the minutes just read. He had at the previous meeting moved and carried that a publication of the proceedings of the Council during the previous year should be made, and he had noticed no mention of it in the proceedings read by the Secretary.

The Secretary re-read that portion of the minutes which related to the proceedings of the Council.

Professor Dick thought there was another report which ought also to have been read.

Mr. Cherry did not see that the reading of that Report was necessary.

Professor Dick considered that it was necessary, as it ought to have followed the reading of the minutes. He would therefore move that the Report be brought forward and read.

The President said a copy of the Report alluded to had been circulated.

Cries from several parts of the room, of "I have not had it!"—"I have not had it!"

The Secretary said it had been published in THE VETERINARIAN and THE VETERINARY RECORD, the two literary organs of the profession.

Mr. Mayer said the meeting seemed to have forgotten what they had met for. They had met for special purposes, viz. the election of six members of the Council, in room of the six gentlemen going out by rotation. They ought at least to do that first, before they entertained the question of receiving the Report of the Council. (Hear, hear.)

Professor Dick was surprised at such an observation. Why, then, had they sent for gentlemen from all parts of the country, if they were not to be informed how the College was progressing? It seemed to him most extraordinary that there should be a Report of which they were not to know. (Hear, hear.)

Mr. Thrupp thought the reading of the Report was quite unnecessary. The Council had been elected as the representatives of the body of members, and ought, therefore, to be trusted.

Professor Dick contended that the College being, as the Presi-

dent had stated, established on popular principles, there ought to be no withholding of information from the members, but a publication of the proceedings of the Council.

Mr Cherry felt that it was impossible for the members to know what had taken place during the past year, unless the Report of the proceedings of the Council was made public. How, he would ask, were the members present to know who to elect on the Council, unless they were in a position to judge how the retiring members had acted? At the last election, five of the retiring members were re-elected, and, if it was made known what they had done, they might again be returned that time. The Report of their proceedings during the past year ought, therefore, to be laid before the body at large, in order that they might regulate their judgments in the matter.

Mr. Vines had declared at the previous meeting, that, whenever they met together to elect six members of Council, they should know what the Council had done during the previous year. Their assembling together would be of no use, if they were only to meet like schoolboys, to do that which they had done before. (Hear.) In that case, they ought to get rid of the Charter; and if that was the way they intended to go on, he, for one, would not attend again. He always would stand up for upright conduct, and, if he found that the labours of the Council were fair and upright, he would support them; but if he found that their conduct was not so, he would do away with them.

Mr. Spooner considered that, if the Report alluded to had been submitted to the Council and approved by them, it ought to be read; but if not, the reading of it would not be in accordance with the Charter.

The Secretary said it had been approved of by the Council.

Mr. Spooner would then submit that it ought to be read before the meeting proceeded to the election of Council. Many members were present on that occasion from distant parts of the country, for the express purpose of learning how the College was progressing, who had not seen a copy of the Report; and he would therefore move that the Report be read before the election of Council took place.

Mr. Cherry said that motion was the same as the one he had moved, and which had been seconded by Mr. Daws.

The President, amid cries of "question," then put the motion which was carried.

The Secretary then read the Report of the Council; at its conclusion,

Mr. Cherry, rising (with the printed Report in one hand and a paper of MS. notes in the other), said, as the mover of the resolution for the reading of the Report, he believed he was entitled to address the meeting. The task he had undertaken was a very

disagreeable one, as he had in his eye a gentleman who had been most active in the matters alluded to in that Report (Hear, hear, hear, from Professor Dick). He must say that he did regret that such a Report should have emanated from such a body. The Report just read stated that it was the second Report of the Council; where, he would ask, was the first Report? He had never heard of or seen it.

The President said the first Report was on the minutes.

Mr. Cherry could fearlessly assert that no first Report had ever been read at the meetings of the Council. The Report read, stated also, that the profession of a veterinary surgeon was an "emancipated occupation after fifty years." Now that he would deny, for it had been supported by the government for the last fifty years. That same power which had made Arthur Wellesley Duke of Wellington, had made the veterinary profession gentlemen, and he had had the honour to belong to them for forty-three years. Again, the Report stated that formerly the profession had not got "a local habitation." Why, that reminded him of the poet's "eye in frenzy rolling." Then, in the second paragraph of the Report, it is set forth that the Council, "impressed with these views"—what views, he would ask, had they had? There was not one view expressed in the Report. A little further on the Council spoke of their "thinking minds;" but what right, he would ask, had they to say that other men had not thinking minds as well as them? It was really too bad. Next came a paragraph "that it was received without any further remark by the Council:"—why, the Council had made no remark at all. Again, the Council declare that they "had not established any system of education, but only sanctioned a system of education which they expect 'will work well.'" In the next paragraph they complimented the Examiners. Now he (Mr. Cherry) thought that no compliment was necessary to the Examiners for having acted like gentlemen. He had now come to the expression of regrets by the Council, and he must say that it was much to be wished that the greater part of that which had been done by the Council had been buried in oblivion. There was, therefore, certainly great cause of regret. After having alluded to the Council in the Report having complained of the agricultural societies of the country, Mr. Cherry said, the Report went on to say that "many have tried to alter the Charter," when they must have known that, although the persons they had alluded to might have tried to induce the Crown to alter it, they could not as individuals do so. Further on, the Report stated that "these alterations would be most injurious to the profession at large." Now he thought it was for the body of members of the profession to decide what would be injurious to their interests, and not the Council, although they might recommend that which they considered would be injurious. Next, the

Report attacked the professors, which in his (Mr. Cherry's) opinion was most injudicious, and ought not to have been done. Then came the character the Council entertained of themselves. Now he thought it would have been better if that character had come from others than from themselves; for what had they done? Why, only setting the profession by the ears with others. After that, they raised the question of the members of the College being liable to fill parochial offices, and their liability to serve on juries. He, for one, thought that filling such offices and performing such duties was a mode of bringing the members of the profession to be better acquainted with their neighbours, and gave them an additional weight in a parish. Let them look at the office of churchwarden:—to be called "Mr. Churchwarden," and to have to preside at a board covered with the choicest viands: what gave a man more importance than that?—and yet some people thought that was a tax upon them. (Cries of "Yes, a very great one, too. It's generally considered so.") That was, however, all matter of opinion, and the whole body alone ought to have power to decide it. With regard to juries, he knew very well by experience that attendance on them was not a very good thing, but still it was one of the most glorious privileges in existence—that of setting in judgment upon a fellow-being. It was a duty, too, which was very easy of evasion when not pleasant to the parties. He would next come to the paragraph respecting "privileges and powers." He considered it nowise incompatible for privileges and powers to be sought after by two parties, for one might be applying for privileges and the other for power; but what those privileges and powers were, was, in reality, an "airy nothing," and it required "a local habitation" to know what they were. Then again the Report stated that "no great effort had yet been made." Had they not got the Charter, and was not that a great effort? Why, then, did the Council say that the great effort was now to be made? But the Report further said that "the Secretary of State was not content to adopt the opinions of the Council, but would hear both sides and judge for himself." Now what appeared to him (Mr. Cherry) to be the real facts of the case was, that the Secretary of State did not want to annul their Charter, but he merely asked for a revision, and stated that, if the Council would consent to that, he would then enter into a specification of the revisions he proposed; on which the Council had got up in arms directly, and had come to the extraordinary resolution found in the Report, which declared that that was all the profession required, and had at once shut the door in the face of Sir James Graham, telling him they would have nothing to do with him, as they were quite satisfied with what they had got. (Hear, hear, hear.) He had now come to the extraordinary letter of the President, which was really like

giving the Secretary of State a slap in the face, and sending him off with a flea in his ear (Cries of, "Serve him right, too. Question, question.—Hear, hear); and then, after attacking the school of Edinburgh, they brought in a nameless individual. Now he would contend that those remarks were not of that honourable character which ought to have emanated from the Council of a College like that. The letter of the President, taken in the whole, was a most extraordinary one; and it was either so much above or so much below his (Mr. Cherry's) judgment, that he would not say a word more about it, but leave it to the meeting to form their own conclusion on the subject. It was clear to him, from the statements of the Council made in the Report, that the Minister was ready to listen to any representations of the Council; but, at the same time, he had no doubt that the Secretary of State had made up his mind to demand some concession. The very fact of the Under-secretary receiving a deputation shewed that he considered there was something to be conceded; and when the deputation went, the President explained that they would make no concessions, and they were immediately bowed out. After remarking on what he termed the impropriety of the Council, in the Report, lauding the published works of some of its members, Mr. Cherry said he had gone to a great length in his remarks on the Report, being an old member of the profession, who had brought up a family in it, and felt that he was entitled to do so. He would, however, conclude by proposing a resolution for the purpose of carrying those views which he had endeavoured to impress upon the minds of the meeting; and with those remarks, and the facts before them, he would reserve any further observations he might find it necessary to make until his reply. He then moved the following resolution:—

"Resolved, That this meeting views with extreme regret the matter and style of the Report tendered by the Council, since it does not shew one single advantage attained, or that any steps have been taken to that end; that its tone is querulous, and its imputation of motives calculated to keep up unpleasant feelings already engendered; that it is erroneously designated a Second Report, while no previous Report has been presented at any meeting of our incorporated body; that, while it complains of low funds and seeks fresh supplies, it does not give any account of the money already placed at its disposal; and that for these reasons, severally and jointly, the Report in question be referred back to the Council for its further consideration."

Professor Dick rose (also with a paper of manuscript notes in his hand) to second the resolution proposed by Mr. Cherry. It did appear to him that the Report of the Council ought to have detailed the whole of the proceedings of that body during the year. Now he found many important matters had been omit-

ted, one of which was a lengthened correspondence that had taken place between the Secretary and himself, which ought to have been put before the Council. His (Professor Dick's) object, in moving the previous year that a Report be made, was that the members might know what was going on, and that it might not be a hole-and-corner matter. If the College was intended to be a popular institution, it ought to be conducted in a popular manner, whereas the Report which had been read was the most meagre statement he had ever seen. He (Professor Dick) had made notes the same as Mr. Cherry had done; and the first question he would ask was, where the first Report was, as he had not heard one word of its contents? The meeting therefore ought to have it before them. It was not consistent with the duties of the Council for them to bring it forward by only a side-wind, when it had never been made public. [A voice, "It has been published."] If it had been published, it ought to have been read at that meeting, and brought in the proper order before them. He thought that examining and teaching were virtually the same thing. The President had however established a curriculum, which he ought not to have done, and which he had no power whatever to do by the Charter. He (Professor Dick) had tried to act with the College; but he had been thwarted by them in every purpose he had endeavoured to work out, and he had therefore kept aloof from them for some time past.

The President rose to order. Professor Dick was quite departing from the question before the meeting.

Professor Dick would then ask, if the decision of the Council, according to the seventh section of the bye-laws, in Maynard's case, had ever been forwarded to him?

The Secretary said it had not, the Council having decided that the gentleman named had not violated the bye-laws.

The President again rose to order. Such questioning could only lead to a desultory conversation. He must require Professor Dick to keep to the point, and to bear in mind that other gentlemen would most probably speak as to the original motion, whom, he hoped, would be allowed to speak at the same length as Mr. Cherry had done.

Professor Dick contended that he was in perfect order, as he was pointing out omissions in the Report of the Council which had been read. That Report he was proving was a partial statement, as it made no allusion to the letters he had referred to, which was a great derilection of duty on the part of the Council.

Mr. Henderson declared that the letters spoken of by Professor Dick were private communications, which formed no part of the proceedings of the Council.

Mr. Cherry expressed his surprise at hearing such an observation. Could communications to a public body on matters connected with the best interests of that body be called *private* letters? He would maintain that they were *public* documents, and ought to have been adverted to in the Report.

Professor Dick further contended that the Charter gave no power to prevent other persons assuming the title of "Veterinary Surgeons," and therefore was good for nothing. With regard to the question as to the members serving parish offices and on juries, he, for one, had no objection to devoting a portion of his time to the furtherance of the public interests. The burthens complained of by the Council were, after all, but a mere flash in the pan. He would, without fear of contradiction, assert that the election of members of the Council on the past year had been made by a clique. He had wanted to get one or two gentlemen of the Edinburgh School on the Council, but they were all kept out. He (Professor Dick), however, stood in a very awkward position, as he had himself established a school. He had stood alone, without the slightest support from the Government, and had submitted quietly to being taxed, and had said nothing but what was necessary for the purpose of the education of his pupils; but in England the schools were semi-public schools. His object in stating thus much was to shew the meeting that he had done some benefit to the profession by turning out several young men who were no discredit to him. He thought, therefore, that they should listen to what he had to say, as he could have prevented the Charter having been granted by only withholding his signature. He had, in all his proceedings, striven to benefit the profession; and he thought that, if a rival institution was established, they would, on the principles of free trade, obtain greater benefits than they now possessed. He most cordially seconded the motion.

Mr. Tombs, in rising to propose an amendment to the motion before the meeting, wished to make a few observations in answer to Mr. Cherry. He differed in opinion with that gentleman on the subject of members of the profession serving parochial offices and being on juries. In the country, they were obliged to go ten or twelve miles to attend juries. The duties of overseers in the country were also most onerous, having to collect rates, which was very laborious. Medical men were protected from doing so, and so, he would contend, ought veterinary surgeons. They wanted protection, and ought to have it, the same as other professional bodies. Professor Dick had said that the Charter was a nonentity. Now that he (Mr. Tombs) would contend was not the fact, for they had now got a Charter under which, when summoned to give evidence, they were entitled to receive a guinea fee, the same as all

other professional men. He therefore thought that, if the College could obtain an exception from parochial and other offices, it would benefit the profession much, and would elevate them in the scale of professions.

The President rose to order. The speaker must confine himself to the question of the Report, which was the only one before the meeting.

Mr. Tombs would then conclude by moving as an amendment, that the Report read be adopted.

Mr. Mayhew would second that amendment, and would take that opportunity of expressing his surprise at some of the observations made by members of the Council. Professor Dick stood condemned and convicted of having betrayed his brother Councillors, and in his (Mr. Mayhew's) opinion, better would it have been, if he had not been condemned of such conduct, that the Charter should be done away with altogether. He would say that, for a person to come forward and attend a meeting with notes ready prepared to criticise a Report of the Council of a College in the spirit of a newspaper critic, *was most improper*. Every thing had been condemned that would in any respect benefit the profession generally, and every thing had been lauded that the Council had in their Report disapproved of. It appeared from the communications in the Report, which the Council had received from the Secretary of State, that the profession were to have the Master of the Horse and the Master of the Buckhounds added to the Council. Why, he would ask, were they not also to have the Groom of the Stole, and why were not the ladies introduced also? He would contend that the President had acted perfectly right in the course he had adopted, and he ought to have the thanks of the meeting for having done so. At any rate, the President had his (Mr. Mayhew's) heartfelt thanks for what he had done. One speaker (Mr. Cherry) had found fault because certain gentlemen were alluded to in the Report, as ornaments to the profession. Now he (Mr. Mayhew) would say with that gentleman, let the general body of members decide who were ornaments; but still he ought not to have sneered at them, and he would have been thought far more liberal had he passed his opinion without alluding to them. The next point that he would touch upon, was the statement that the Report "was not correct." He would say that it did not go far enough. It blinked the question. Before the Charter was granted the profession had the same name that bastards have. Now, however, it had a legal name. By the Charter they had acquired privileges they had not before. (Hear, hear.) They had, before the Charter, pupils of six weeks' standing foisted on them; now that would be so no longer. The Examiners would now put such boys on one

side. They had also now attained a right to go before Parliament, which they could not do before. They were now a body, a recognised body, which was standing before the public as having been recognised by the Crown. The next topic alluded to was the agricultural societies. Now, he would say that it was the agricultural societies who knew nothing about the profession, who were petitioning to have the right of dictating to the body of the veterinary profession. They had come forward and said, we know nothing of your profession or your affairs; and yet we ought to rule over you. Now, he thought when societies came forward with such impertinence, it was high time to put a stop to it. A more impudent assumption had never before been advanced. It was a gross and a flagrant insult upon the whole profession. (Hear, hear.)

Mr. Vines would answer the gross assertions which had been thrown upon the agricultural societies. Mr. Mayhew had charged those societies with gross impudence. Why it was only six months ago that Mr. Mayhew said, no confidence could be placed in the Council. He would, however, rather be in the hands of the Royal Agricultural Society than in Mr. Mayhew's. Suppose some of the members of such societies were on the Council, they could do no harm. He could also see no objection to teachers being on the Council; and although it was all very well to have Examiners, they ought to be persons the best qualified.

Mr. Gabriel said he was ready to give credit to Professor Dick for not having been present at the meeting of the Council at which the Report was drawn up; but the mover of the original motion was present, and well knew that it was moved to alter certain parts of the Report; and he saw a gentleman present who moved two or three of the alterations proposed, and which Mr. Cherry allowed to drop for want of a seconder, and then he rose and spoke in a speech replete with vituperation. He told him then that he had not done his duty, and he would now again repeat that charge.

Mr. Ferguson would allude to that portion of the Report which stated that the system of teaching and education had worked well. Now he thought the system was not extensive enough—(hear, hear); yet they saw from the Report that the Council was satisfied with it. He was, however, prepared to maintain that the curriculum of study was not sufficient. It was not so extensive as it was in other countries. Professor Dick had said that the Charter would not allow the Council to fix the curriculum of study. Now he would contend that it did empower the Council to regulate the curriculum of study, as they had by it the power to grant diplomas.

Professor Dick said he did not admit that, and he had the right to put a different construction on the terms of the Charter.

Mr. Ferguson was prepared to contend that, by the ordinary rules of logic, if the Charter gave the Council the power to examine on whatever point or subject they pleased, it gave them a right to regulate the curriculum of study. The pupils had not, he would contend, education enough. It was much more difficult to make a diagnosis in a veterinary case than it was for surgeons, as the patient in one case could be spoken with, in the other he could not. He would also contend, that, in order to be able properly to treat the diseases of animals, the pupils ought to be made acquainted with the elements of therapeutics. They were never taught botany; but he thought that science ought to be an adjunct to the system of study. Then, again, he thought that the period of study ought to be extended. Now there were only two sessions during a period of about fifteen months, and it was, he would contend, impossible to master all the subjects in two sessions. That was, he believed, the great cause of the contempt which was shewn by the medical profession to the veterinary surgeons. He meant the inequality of education. The system was quite different in foreign colleges. There, pupils had to undergo a certain system of education before they were qualified to be admitted as students; and at the Brussels, Lyons, and St. Petersburgh Colleges, and at others, the period of study was four years, while in this country it was not two years. He thought, therefore, that the period ought to be enlarged, as well as the subjects for study.

Mr. Cherry, in reply, alluded to the speech of Mr. Mayhew, who, he said, was a most excellent declaimer; but he thought that that gentleman ought not to have fixed upon one member of the Council, but upon all. All those remarks were, however, extraneous to the motion he (Mr. Cherry) had proposed, and he would not, therefore, go further into them. He would also pass over all that had been said on the subject of the amendment as irrelevant; but he would defend his conduct at the meeting of the Council alluded to by the Secretary. The reason why he did not second the motion for the alteration of certain portions of the Report was, that he was not, at that time, sufficiently acquainted with the facts on which that Report was drawn up, although he held his hand up against the passing of the Report. There were eight persons present besides the President, and five were for the Report being passed, and three against it; but the feeling of the Secretary was evident from what he had said. In conclusion, he would only further observe, that the whole of the remarks that had been made by the members during the discussion had fully borne out the necessity for the passing of the resolution he had proposed.

The President said it would be his duty to put the amendment first to the meeting.

Professor Dick objected to that proceeding. It would be a waste of time. Both motions should be put together, as in Scotland.

The President said the rule in London was to put the amendment first. The mode in Scotland had never yet been adopted in England.

Professor Dick would still contend that the mode he had proposed was the proper way of doing business.

The President then put the amendment, when there appeared 30 for it and 14 against it, and accordingly declared the amendment carried.

Professor Dick entered his protest against that decision, for reasons to be given in, and demanded that that protest should be entered upon the minutes.

Mr. Cherry said the meeting was now going to exercise a very important right—that of proceeding to the election of six members of Council. Before, however, they exercised that right, they ought to be put into possession of the attendances of those gentlemen who were retiring from the Council by rotation. He would therefore move, that the number of Councils held and the attendance respectively of the six members who go out by rotation, be now read.

The Secretary observed, that doing so would occupy full half an hour.

Mr. T. W. Mayer said he thought he could in one moment give the meeting all the information they required upon that point. Only three of the members of Council had not attended. All the rest had been most attentive to their duties.

Mr. Henderson proposed that Mr. Baker and Mr. Braby be the scrutators during the election, which having been seconded,

Professor Dick proposed that some of the students of the Edinburgh School should be named as scrutators. That was the only way in which they could exercise any influence on the Council.

Mr. Cherry bore testimony to the extreme fairness shewn by the two gentlemen named on previous occasions, and suggested that, as there were two schools, perhaps it would be better to appoint a scrutator from each.

Mr. Mayhew contended that they had nothing to do with schools: they had met as a profession.

The opposition was, however, subsequently withdrawn, and the nomination having been carried, the list of the Council was read by the Secretary, who particularized the gentlemen retiring by rotation, and the balloting was then commenced.

The President, at the close of the scrutiny, announced that the election had fallen on Mr. F. King, who had 33 votes; Mr. Mayhew, 33; Mr. W. C. Spooner, 30; Mr. C. Spooner, 21; Mr. W. A. Cherry, 19, and Mr. Wilkinson, 19.

The Secretary then read a statement of the Treasurer's accounts.

Mr. Cherry objected to the expenses of the three gentlemen who had been sent to Edinburgh for the purpose of examining into the state of the school in that city, by the President, before the Council was complete, in 1844, and which expedition had been the sole cause of all the bickerings which had since arisen. He objected to that payment, as they had not been sent by the Council, but by a part of the Council.

Mr. W. Field would acknowledge that he was one of the Council who authorised the Deputation to go, as there was not time to give notice for calling a public meeting.

Mr. Cherry. And therefore the appointment of that Deputation was illegal. That was the reason why he objected to it.

Professor Dick moved that the Treasurer's accounts, just read, be printed and circulated amongst the members.

The President explained, that it was necessary that there should be an examination made into the state of the Edinburgh School; but at the moment the necessity existed, there was not time to obtain the sanction of the whole body.

Mr. Cherry thought that the resolution come to by the portion of the Council who agreed to send the Deputation ought to be read.

The President trusted that the meeting would allow the discussion on the motion for the printing of the accounts to go on, as he thought it quite right that they should come to the question of the ways and means.

Mr. Cherry, to bring the question fully before the meeting, would further move, that the consideration of the passing of the accounts be deferred until they had been printed and circulated.

Professor Dick would support that proposition, as he did not approve that the passing of the accounts should be taken into consideration before they had been printed and circulated.

Mr. Mayhew thought the only question to be considered was, that if the Deputation went to Edinburgh without the consent of the Council, whether they ought not to bear their own expenses; but if they went by consent of the Council, then the College was bound to pay the expenses. (Hear, hear.) Had they gone as spies, as Professor Dick would wish the meeting to infer, then they must have gone without that gentleman's knowledge.

Professor Dick declared that they did do so.

The President denied that assertion. Professor Dick had invited all the Council down. (Hear, hear, hear.)

Professor Dick admitted that he had done so, but not to take private notes, and make double reports, as the Deputation did.

Mr. Mayhew contended, that what Mr. Spooner did as a private individual while he was at Edinburgh, he alone was answerable for to Professor Dick as an individual; but if he had acted as one of the Council, then was the Council answerable. He was surprised that Mr. Cherry, a man of education, who had been in the army, associating with gentlemen—he repeated he was surprised at hearing that gentleman asserting that which he would himself spurn. He was, however, sure he would not offend knowingly. What, however, were the facts? why, that those gentlemen had gone down to Edinburgh, and looked at things as they saw them, and not with Professor Dick's eyes; and as they saw them, so they spoke of them; and in having done so, they had offended Professor Dick.

The Secretary here read a minute of the meeting at which he had said Mr. Cherry was present.

Mr. Cherry said, as great stress had been put on the name of *Cherry* by the Secretary, he would observe that there was nothing in the minute to prove that Mr. Cherry either voted or expressed an opinion on the subject. He could recollect well, and so could the Secretary, that on the occasion in question, he said that, not being sufficiently acquainted in the matter, he should neither support nor oppose the motion, and that, when he ascertained the real facts, he then was decidedly against it.

Mr. Mayhew would only further say, that if the Council were wrong, Mr. Cherry was wrong also, as he, as one of the Council, had passed the item of account which he now objected to.

Mr. Cherry explained, that the ground on which he objected to the account was, that the Deputation was sent down by only a section of the Council, and not by the body of them.

Professor Dick said he objected to their having been sent, for the reason stated by Mr. Cherry, and also to the payment of the item.

Mr. Withers then moved as an amendment, that the accounts be now confirmed, passed, and printed for circulation.

Mr. Mayhew seconded the amendment.

The President having put the amendment, it was carried, there being for it, 23—against it, 5.

The President then proposed that the meeting should open a list of annual subscriptions for the support of the College they were so proud of.

Mr. Mayhew thought that their having done so ought to be made known publicly. There were so many vast interests so intimately

connected with the same interests as the College, that sure he was, the call would be most successfully responded to.

Mr. Vines had recommended that course two years ago. It was, however, never too late to act right. He had also recommended the establishment of a museum, which he thought would do more good than any thing. A common blacksmith might say that he could doctor horses as well as any of the members present; but if they had a museum containing a collection of anatomical remains, it would shew the public the benefit of having a college of veterinary surgeons, and that they were in reality a professional and scientific body.

The President said he hoped that, from that time forward, all recollection of what had occurred would be forgotten, and that for all time in future they would be united. "A house divided against itself cannot stand." "Union is strength," and when they were all united, every thing would go on well.

Mr. Cherry was very much pleased at the speech just delivered by the President, and would support that proposition; but he still felt himself entitled to express an opinion on the matters which had come before the meeting. He had always cautioned the Council to go on in their proceedings cautiously, as the eyes of the public were upon the proceedings of an institution so new as their College was. Now he wanted to know about that paper which was being handed about the room. It could be no motion or resolution, as none had been proposed. Oh, he saw; it was for a subscription, and that when the majority of the members were gone. That was not a business way of doing things. He was ready to subscribe, but he would not do it in that irregular way.

Mr. Baker said, he had prepared himself for bringing a proposition before the meeting on the subject of providing for decayed members of the profession, when, owing to the vicissitudes of life, they became reduced in circumstances; but, at that late hour of the day he felt the importance of postponing it until another and more fitting opportunity.

Mr. Cherry said, "Be just before you are generous" was an old saying, and he would therefore say, let the subscription be an annual contribution, and let a motion to that effect be passed. Assess him what they liked, he would pay it; but he did not like to see an irregular paper handed about without any authority, to compel the payment of an annual subscription.

Mr. Field begged to propose, that an annual subscription be entered into and carried out by the Council.

Mr. Ernes seconded the motion.

Mr. Cherry objected, that no notice to that effect had appeared in the notice calling the meeting.

The President then put the motion, when sixteen hands were held up for it, and none against it.

Mr. Field proposed a vote of thanks to the President for his able conduct in the chair during the business of the day.

Mr. Cherry seconded it, although there were parts of the day's proceedings that he had been opposed to and disapproved. The motion having been carried,

The President briefly returned thanks, and at half-past 6 o'clock the meeting broke up.

SECOND REPORT OF THE COUNCIL OF THE ROYAL COLLEGE OF VETERINARY SURGEONS

TO THE MEMBERS OF THE PROFESSION.

THE Council of the ROYAL COLLEGE OF VETERINARY SURGEONS have the honour of presenting this their second annual Report to the members of the profession assembled this day under their Royal Charter of Incorporation, a Charter granted by the gracious condescension of Her Majesty, which has emancipated us from the grade of a nameless and unrecognised avocation, and enabled us to take a position among not only the useful and recognised, but also the liberal and scientific professions of the age; which has given us a name—may it soon be said both "a local habitation and a name"—and contains in its provisions such simplicity of arrangement and liberality of views that it extracts from every thinking mind the highest commendation.

Your Council, impressed with the correctness of these views, conceive they are acting most cordially up to their spirit by presenting, on this the day of our annual general meeting, a Report of their proceedings to their professional brethren and constituents.

Your Secretary states, that he has been indirectly informed—for he has received no official communication to that effect—that an error of a single word was made by him in his Report to the Council of the proceedings of the Board of Examiners in Edinburgh in 1845, and embodied in the first annual Report: that error is stated to have been the misplacement of the word "taught" instead of "examined," in a protest made by Professor Dick during those proceedings: he, the Secretary, adds, that it is just possible such a mistake might have been made, and, if so, regrets the fact. This statement is received without further remark by your Council.

More matured consideration and the experience of the last year have satisfied your Council that the system of education and examination sanctioned by them is one that is working and will eventually work well for the profession, and they beg to express their entire approbation of, and to return their thanks to, the members of the Board of Examiners, both of the London and Edinburgh divisions, for their valuable services in this matter; as also to the Professors for their assistance therein; and to acknowledge the courteous and deferential behaviour of those who have submitted themselves for examination. Your Council regret having lost the valuable services of E. Stanley, Esq., the late Chairman of the Board: his various other professional avocations occupying so fully his time having induced him to tender his resignation; fortunately, however, the vacancy has been most ably filled by the election of Dr. George Babington: the name alone—so endeared to every one connected with veterinary science—guarantees how well the important and onerous duties connected with it will be sustained.

It is a source of much regret to your Council, that they cannot, as yet, announce the existence of that perfect unanimity and harmony that are so essential for the well-being and advancement of veterinary science. During the past year attempts have been made by gentlemen connected with the veterinary schools and agricultural societies, to alter some of the provisions of the Charter, which your Council deemed inconsistent with the integrity of that document, as well as contrary to the interest of the profession.

Gentlemen, the members of your Council have no party spirit to misguide them—no personal feeling to prejudice them—no interest whatever either in opposing or acceding to the wishes of either of your recognised schools: they have the welfare of their profession at heart, its advancement and improvement in view, and the proficiency and honour of its members in constant remembrance. Should they shrink from preserving these inestimable objects, they would lower themselves in their own estimation as well as in yours: should they in standing by them, and as far as possible acting up to them, conduce to their being ultimately carried out, they will have the reward of their own feelings, and, they doubt not, of your cordial co-operation and approbation.

But not only has the opposition raised been a source of great regret to your Council, but it has been and still is operating most detrimentally to the interest of every member of the profession; for *one* great object in view in obtaining the Royal Charter of Incorporation was, its being an essential, and indeed an indispensable, preliminary to the obtaining an Act of Parliament to remove the liabilities of being called on to serve certain parochial and other

offices, which make great and injurious demands on our time and attention; and an application for these exemptions would, your Council have every reason to believe, be attended with success; but how, with common consistency, can it be made, while the Government is importuned for certain privileges on the one hand and for certain powers on the other? Such disunion would at once constitute a plea for the rejection of even the most reasonable claims, and thus all suffer from the importunities of the few. Let us hope the time will come when, hand in hand, one great effort will be made to ameliorate and improve the body at large!

Arising out of these conflicting views the following correspondence and result have taken place:—

Sir, *Whitehall, Aug. 18th, 1845.*

I am directed by Secretary Sir James Graham to acquaint you, that he has received from various quarters, and from parties who feel a deep interest in the advancement of veterinary science, applications for the grant of a Charter of Incorporation differing, in some respects, from that which was lately granted by Her Majesty to you and certain other members of the veterinary profession.

Sir James Graham is disposed to attach weight to the representations which have been made to him on this subject; but it appears to him that modifications might be introduced into the existing Charter which would attain the objects sought by the parties making these representations, and which would, indeed, as Sir James Graham believes, render the Charter itself more satisfactory to the profession at large. Before he takes any steps, therefore, in this matter, he will be glad to learn from you what may be the views which are entertained with regard to it by those to whom the existing Charter has been granted.

Sir James Graham does not think it necessary at the present moment to enter into any detail of the specific alterations which have been suggested to him; but he will be prepared on a future occasion to communicate them to the Royal College of Veterinary Surgeons, in the event of their concurring with him in the opinion that, under the circumstances which he has stated, it is desirable that the Charter possessed by them should undergo revision.

I am, Sir,
Your obedient servant,
H. Manners Sutton.

Mr. Thomas Turner,
Veterinary Surgeon, 311, *Regent Street.*

To the Right Hon. Sir James Graham, Bart., Her Majesty's Principal Secretary of State for the Home Department.

Sir James,

I have the honour to acquaint you that a meeting of the Council of the Royal College of Veterinary Surgeons was held at the Imperial Hotel, Covent-Garden, on Thursday the 11th inst., at which it was unanimously agreed as follows:—

"That the views entertained by the Council are, that the present Charter is all that the general body of the profession either wish or require, and, therefore, they are most desirous to retain it in all its present integrity."

These views are founded on the facts, that not a single complaint has been made against it by any one member of the profession unconnected with the Colleges of London and Edinburgh, and that the objections raised by the parties connected with these establishments have not been grounded on the improvement and advancement of the profession at large.

They would also adduce the important proof of the approbation of the body of the profession, given at the Annual General Meeting, in the re-election of five out of six of the retiring members of the Council.

Under these circumstances the Council would take the liberty to observe, that they cannot conceive any points of view in which the Charter with which they have been honoured can require revision.

But at the same time, wishing to treat with the greatest respect the high source from whence these intimations have emanated, they will be prepared to give to any suggestions, when made known, that grave and mature consideration which their importance will doubtless demand.

An anxious duty of the Council has been to prepare a code of bye-laws tending to the improved education and future well-being of the members of the body politic and corporate: they have done this to the best of their ability; but they are well aware that alterations and amendments may still be necessary to render them perfect, and any modications or revisions that may be suggested, having these objects in view, will receive their undivided attention.

I have the honour to be,
Sir James,
Your most obedient servant,
THOMAS TURNER.

311, *Regent Street*,
Sept. 12*th*, 1845.

Sir, *Whitehall*, 11*th Nov.* 1845.

I AM directed by Secretary Sir James Graham to acknowledge the receipt of your letter of the 12th September, in which you state that the Council of the Royal College of Veterinary Surgeons is prepared to receive and maturely consider any suggestions which may be laid before them by the Secretary of State for the alteration of their Charter.

In proposing a revision of the Charter Sir James Graham is influenced by the same desire for the improvement of the veterinary profession by which he was guided in advising Her Majesty to grant it.

Notwithstanding the arguments adduced by you in proof of the general acquiescence of the profession in the provisions of the Charter as now constituted, Sir James Graham has received intimations that this satisfaction is not shared by several important bodies deeply interested in the advancement of your profession. To some of these institutions are mainly due those improvements in the knowledge and skill of veterinary surgeons which entitled you to ask for recognition by the Crown as professing a liberal science; and from that and other considerations they possess claims which it is impossible to overlook. It is anxiously desired by Sir James Graham, that means should be found of interesting them in the progress of your College, rather than that they should continue to urge hostile pretensions, which cannot but be detrimental to your prosperity, and might possibly lead to the establishment of a rival institution, which would weaken your influence and utility as much as their union with your body would impart to it strength and dignity.

The main change which Sir James Graham is desirous of recommending in your Charter would be the reconstitution of your Council, so that it should consist partly of practising members of the profession, partly of nominees of

the principal educating veterinary colleges and agricultural societies of the united kingdom.

With a body so constituted some great officers of State—such as the Master of the Horse, the Master of the Buckhounds, and some of the principal medical and surgical officers of Her Majesty's forces—might properly be associated: the propriety of such an addition is obvious, on considering how important veterinary science is to the efficiency of Her Majesty's cavalry.

It is the opinion of Sir James Graham, that by this alteration the opposition of the influential bodies to which he has already alluded might be obviated, and, at the same time, that additional dignity would be reflected on the whole profession.

A body constituted on such a basis as I have sketched would have the character of a national institution, and it is natural to expect that its diplomas would be everywhere received with more consideration than when proceeding from a body exclusively composed of practising veterinary surgeons, as now established, however respectable. I shall be ready, on the part of Sir James Graham, to receive a deputation from your Council for the purpose of considering the steps proper to be taken, after you have fully weighed this proposition in all its bearings, and the consequences of its adoption or rejection by your body.

I am, Sir,
Your obedient servant,
H. Manners Sutton.

T. Turner, Esq., Regent Street.

In consequence of the intimation thus conveyed, that Mr. Manners Sutton would be prepared to receive a deputation from your Council, your President, Messrs. Percivall, Goodwin, Field, and the Secretary, were deputed to wait on that gentleman at any time that he might appoint; and, accordingly, the interview took place at the Home Office on Monday, Nov. 24, 1845: its result is contained in the following report to your Council:—

"Your President has to report, that an interview has taken place with Mr. Manners Sutton, who at the commencement remarked, that he had requested it upon the understanding that the Council had agreed to certain alterations being made in the Charter. The President, however, begged to remind Mr. Manners Sutton that no such acquiescence had been given. Upon which that gentleman declined entering into any particulars of the views of Sir James Graham, and the interview closed.

"Thos. Turner, *President*,
on behalf of the Deputation."

You will at once perceive that, should the suggestions of Sir J. Graham, or any analogous thereto, be entertained, the principles of your Charter would be undermined, and its integrity destroyed; for, instead of a Council elected by yourselves, chosen from your own body, and therefore intimately acquainted with the wants and interests of the profession, the whole affair would be under the control of the government; your elective franchise would be lost, and professional talent and character would be undervalued.

But it would appear that diplomas of more weight are desirable than those given by a Board of Examiners exclusively composed of "practising veterinary surgeons, however respectable;" the same remark, then, would apply to diplomas granted by the Royal College of Physicians and by the Royal College of Surgeons, as well as to the certificates given by the legal bodies; for in either of these cases we find no higher authorities had recourse to than the practising members of the respective professions; but your Board of Examiners is not so constituted: for it is felt but too keenly—would that the feeling was met with in quarters where it is most needed—that veterinary science has not yet taken, although it is now taking, its proper position in public opinion, and therefore the aid of science and medicine has been had recourse to. The name of Professor Brande, your Council presume, is not altogether unknown in the scientific world—the names of Dr. George Babington, Bransby Cooper, and Robert Liston may, it is believed, be met with in the records of those contributing to and ornamenting the medical and surgical professions; and while combined with these are the most scientific and popular veterinary authors of the age, William Percivall, James Turner, and William Field, your Examining Board may correct the error of its consisting only of practising veterinary surgeons.

You will observe, that in the reply of the Council a strong feeling is manifested to meet the wishes of all parties, as far as certain alterations in the Bye-Laws of the College can be made to do so; and a notice of proposed alterations has actually been suspended for months with this object in view. It must be most clearly understood, however, that the proposed alterations are delayed only in order to learn the wishes of the opposing parties, and to ascertain how far it is possible consistently to meet them.

But the Funds of the College—the mainstay of its welfare, and support, without which no institution can be maintained, no great public good can be carried out—this is, indeed, a sore topic for your Council to touch on. Had it not been for the liberality of a few, and among those an enthusiastic admirer but not a member of our profession, Capt. Randall, the necessary expenses up to the present time could not have been defrayed. Numbers of veterinary surgeons, and some of them, too, standing high and holding public appointments, whose names ought to be foremost in any onward progress of our professional condition, have not given one farthing towards even defraying the expenses of obtaining the Charter itself, much less towards enabling that Charter to be worked out in all its efficiency. Why are we assembled *here* to-day? Why have we not met in our own institution, or at any rate in offices bearing our own name? The answer is too evident—the state of our funds. And why is this? Your Council cannot believe that it

is entirely owing to professional depression, for that, though, alas! too severely, is but partially felt. They will not believe it is from mere apathy; for that would be all but a libellous creed; the fact, nevertheless, is so, and your Council would fain hope that the combined exertions of this day may strike out some eligible arrangement for the removal of this disgraceful stigma from our body.

In conclusion, although your Council regret they have not been able to make any great advancement in the paths either of improvement or conciliation, still they have the proud satisfaction of having thus far successfully resisted all the efforts made—and they have not been few nor far between—to deteriorate the Charter with which our most gracious Sovereign has honoured us: to continue to do so will be one great object of their unremitting attention: another—in which they will not yet give up the hope of being seconded by every branch of the profession—will be, to gain those immunities to which we are fairly entitled, and at the same time to prove, by every effort in education, in practice, and unsullied general behaviour, that we are not altogether unworthy of them.

MEMBERS OF COUNCIL FOR THE SESSIONAL YEAR 1846-7.

W. Sewell	F. C. Cherry
W. Robinson	W. Field
J. Siddall	T. W. Mayer
A. Henderson	G. Baker
Jas. Turner	E. Braby
W. Percivall	W. Ernes
T. Mayer	F. King, jun.
C. Percivall	E. Mayhew
W. Goodwin	W. C. Spooner
W. Dick	C. Spooner
E. N. Gabriel	J. Wilkinson
J. H. Langworthy	W. A. Cherry.

THE renovated Council held their first meeting at the Freemasons' Tavern, Great Queen-street, on Wednesday, the 20th of May last. There was a goodly assemblage of the members present, it being foreknown that, in compliance with the Charter, the election of the President and Vice-Presidents for the present session must take place on the occasion. The choice of the

Council, for the third time, fell, unanimously, upon Mr. Thos. Turner; and sincerely do we congratulate that gentleman upon his re-accession to office. The first two years of the presidentship have not turned out enviable ones; we hope the present will prove such as, in some measure, to compensate him for the cost of time and thought the former must have occasioned him. Of one thing, by way of consolation, we think we may venture to assure him; and that is, that the changes which have taken place in the Council will be productive to him of additional support, and that of no despicable character.

The gentlemen chosen as Vice-Presidents for the present session are, Messrs. Robinson, King, senior, Jas. Turner, Field, Mayer, senior, and Wm. Sewell (Professor at the London Veterinary College).

Mr. Gabriel, we are happy to say, was, with one accord, re-elected into the office of Secretary. His responsible, and, at times unpleasant, duties he has performed with a resolute firmness, mingled with a gentlemanly bearing and urbanity of manner which is not to be found in every corner of the profession, and therefore it is that, while we commend the Council for having the good sense to re-instal him, cordially do we congratulate him upon his return to office.

BOARD OF EXAMINERS.

At the sitting of the section of the Board for England on the 8th April, the following pupils of the London Veterinary School received their diplomas, and were admitted members of the Royal College of Veterinary Surgeons:—

Mr. John Mitchell
— Paul Wray Hayden
— Henry Draper
Mr. Alfred Rushall
— George Hayden
— William Deforges.

And at the sitting of the 29th April:—

Mr. William Phillips
— James Rose
— John Dunsford
— Eward Thomas Bass
— George Langisson
Mr. William Allen
— Frederick Arnold
— George William Varnell
— John Mannington
— George White.

And on the 22d May:—

Mr. James Thacker
— Babington Keyes
— William Emms
Mr. Thomas Poynton Dexter
— Samuel Keay
— Henry Fishwick.

At the sitting of the section of the Board for Scotland, on the 27th April, 1846, the following pupils of the Edinburgh School received their diplomas, and were admitted members of the Royal College of Veterinary Surgeons:—

Mr. Robert Ord
— Thomas Gray
— Thomas Murray
— Alexander Caldwell
— William Gavin
— James Robinson
— William Elam
— William Waugh
— John Goude
— James Crombie
— Stephen Constant
— George Knox
Mr. Edward M'Naughton
— William Mayor
— John Simpson
— George Stewart
— James Kay
— Archibald Turnbull
— Robert Lorley
— Mari H. Cuming
— William Baxter
— John White
— George Bodington
— John Barth. Murphey.

Extracts from Domestic & Foreign Journals, Veterinary, Medical, Agricultural, Sporting, &c.

The Treatment of Fistulæ of the Parotid Duct in the Horse, followed by some practical Considerations relative to the Means of Cure employed in Human Surgery.

By M. Reynal, *First V.S. to the Sixth Lancers.*

"S'il est vrai que, pour se constituer, la médecine vétérinaire a en récours a la médecine humaine, si journellement encore elle lui fait de nombreux emprunts, elle lui a toujours offert et livré en rétour, le fruit de ses observations, de ses réchérches, et de ses expériences."—*Barthélemy.*

[Continued from page 282.]

CHAPTER III.

Practical Facts—Description of Morbid Lesions—Results of some Experiments tried on Wounds of the Parotid Duct.

It is not our intention to narrate in this chapter all the cases that have come under our own observation or been communicated to us; that would be useless, a cure having invariably been obtained by means of the treatment we adopted.

1. On the 1st Dec. 1838, I introduced the point of the cautery among the glands of the throat. On the fourth day I perceived that I had touched the parotid duct with the iron. Desirous of studying the progress of the wound, I merely caused all alimentary matters that required much mastication to be discontinued. The wound was dressed, successively, with tincture of aloes, pledgets of tow, and desiccatives. On the 28th of the same month the cicatrization was complete.

2. On the 3d May 1839, the left duct was opened in its glossal portion by a hot iron. When the scar fell, I discovered what had happened, which I had previously suspected, on account of the adherence of the gland to the maxilla at the part over which the canal passes. As the discharge of saliva was considerable, I covered the surface of the wound and the course of the canal with blistering ointment, the action of which was followed up by the application of a hot iron. On the 13th day, the discharge had almost ceased; on the 17th, the wound was apparently cicatrized; on the 22d, all regimen was discontinued, and the animal returned to his ordinary rations.

3. On the 15th June, 1840, I opened the right parotid duct while introducing the cautery into an abscess arising from strangles. On the 20th, the saliva began to flow; on the 24th it was discharged abundantly, notwithstanding a vesicatory was applied. I renewed it, and extended it over the parotidean region, up to the part where the duct rises. The horse was put on the before-mentioned regimen, and kept tied up with two straps. On the 10th of July he was perfectly cured.

4. On the 10th May 1842, while incising, with a straight bistoury, a farcy-bud, situated on the left side of the face, on the course of the duct, I opened the latter. The horse had scarcely returned to his stall when a discharge of saliva commenced, which was very considerably increased on his being given a few handfuls of hay. I made two successive vesicatory applications, kept the patient on white diet, and, at the end of fifteen days, he would have been able to return to work if other farcinous wounds had not kept him in the infirmary.

5. On the 6th June 1843, I extirpated the glands of the throat in a regimental horse. In a sudden movement of the head my bistoury touched the right duct while seeking to detach it from the glands, with which it had contracted a close adherence. In order to convince my assistant, M. Détroye, that the canal actually was open, I introduced a knitting-needle into it to the extent of an inch or more; and this introduction was increased in consequence of a sudden bobbing of the animal's head on the chest. This

foolish and blameable proceeding, which I merely practised in order to make M. Détroye understand that such lesions were by no means serious, induced a slight irritation of the excretory conduit of the gland. There was dulness and want of appetite. Three quarts of blood were taken from the jugular; the white regimen strictly adhered to, the hair cut from the part, and an embrocation applied. This was continued for four consecutive days, after which this treatment was replaced by vesicatory applications over the parotid gland and its duct. All the symptoms, and especially the discharge, soon began daily to diminish. On the thirty-seventh day the horse was able to return to work.

A long while after this accident the same horse died of disease of the chest. The parotid had retained its perfect integrity, and the canal was thoroughly cicatrized. When speaking of the morbid lesions we shall give an account of this curious autopsy.

6*th.*—On the 20th Dec. 1843, I took off a species of scirrhous tumour which entirely filled the inter-maxillary cavity, and had resisted the application of the most energetic dissolvent means. The horse being thrown and properly fixed, I made a longitudinal incision in the median plain of the throat, and detached the skin on both sides. This being done, I grasped the morbid production with a pair of clams, confided to the care of an intelligent assistant: I dissected off the left side thoroughly and without difficulty; but the right I found very difficult, on account of the adherence it had contracted, not only with the bone, but also with the masseter. Nevertheless, I had nearly finished the operation, when, through a struggle of the horse, I perceived that I had cut across the parotid duct, together with the artery and the vein accompanying it*. This accident was the more difficult to avoid, as neither of these parts had retained their natural position or course. I tied the vein and the artery, after having placed pledgets of lint upon the flaps of skin; and I applied as a dressing, pledgets steeped in alcohol diluted with water. As there was an abundant discharge of saliva, I applied a vesicatory on the fifth day to the parotid gland and along the course of the duct; the wound being constantly dressed with tincture of aloes.

On the twentieth day it looked well, but the saliva continued to flow, especially while the animal was eating. I ordered two more vesicatory applications. On the twenty-eighth the saliva had ceased to flow, and the wound rapidly approached to cicatrization.

In the following March the horse died of glanders. Before his death I had occasion to see him, but was never able to perceive

* About one-third of an inch remained attached to the tumour.

that the absence of secretion of saliva on the right side occasioned indigestion. Externally, there was not the slightest apparent trace that could indicate that the parotid on that side was deprived of its secretive properties.

We have already stated that the patient which furnished us with the fifth case died in consequence of a disease. After death, we made a very careful post-mortem examination, and directed our attention chiefly to the parotid duct, which had been longitudinally divided by the bistoury. The following were the results:

At the spot where the duct had been opened, the skin was a little more adherent, and the subjacent cellular tissue was hard and condensed, which rendered it difficult to detach the duct from the surrounding parts. Just where the cicatrice had been formed there was a thickening of the parts, a species of swelling. Although by touching it I had convinced myself that the passage of the duct was not obliterated, in order to remove all possibility of doubt on the subject, I introduced into it a flexible osier twig, which passed through to the parotid without encountering the least obstacle. The parotid gland did not present the slightest apparent morbid lesion, even when compared with the opposite one.

The sixth case we related furnished us with an instance of transverse division of the canal, attended by loss of substance. The cicatrization, as we have already stated, failed not to take place from simple re-union of the lips of the wound.

In support of our opinion, we can shew the pathological preparation of the two portions of the parotid duct, which, at the part that was divided, bore evident traces of a perfect cicatrization. The parotid was paler and tougher than that on the opposite side. The cellular tissue also was closer and firmer: that lying between the lobes was peculiarly marked by these characteristics. In the internal portion of the canal, contiguous to the gland, was a fatty, adhesive, gelatinous matter which clung to those parts of the walls of the conduit that had become thinnest.

That portion of the duct which opens into the mouth was somewhat thickened, and the diameter of its opening was less than natural.

The experiments we have tried, as well as the facts we have collected, all tend to prove *that lesions of the parotid duct are neither tedious nor difficult of cure, and that they are susceptible of cicatrization by pure and simple re-union of the lips of the fistulous wound.*

Independently of the practical facts here related, we have communicated several others in the volume of the *Recueil* for 1841, page 552.

The experiments we have made are also related. Both have attracted the attention of the Royal and Central Society of Agriculture, who have made honourable mention of them*.

CHAPTER IV.

Some Considerations relative to the Treatment of Fistulæ of this Duct in the Human Being† :—might not that which we propose be, under certain circumstances, with advantage substituted for the ordinary treatment?

Numerous means have been had recourse to in order to effect the cure of salivary fistulæ of the parotid duct, and all of them, in the course of a greater or less period of time, have been attended with the best results, and brought about incontestible cures. Studied in their whole, and in a general manner, the principal modes of proceeding hitherto adopted may all be arranged under four heads.

A.—The first of these acts chiefly upon the external wound, the object being to obtain cicatrization of the fistulous opening. Several modes of proceeding have been recommended. Among these are cauterization, compression, twisted suture, and ligature of the canal.

1st. *Cauterization* has been frequently practised. It succeeded with Louis, who employed it, although he thought always that it was more calculated to increase the size of the fistula than to cicatrize it. It may be performed with either actual or potential cautery. It has occasionally been aided by compression along the course of the canal.

2d. *Compression* alone has been often employed between the parotid gland and the fistula, and even on both these parts, in order to interrupt the course of the saliva during the time the wound takes to heal. But this proceeding, although occasionally successful, is not without danger. Louis, and several more modern practitioners, were of opinion, and justly so, that it often occasioned

* Cases of *recent* lesion of the parotid duct are certainly neither "tedious nor difficult of cure;" and there is no better method of treating them than what M. Reynal has so well described. But, let M. Reynal have such a case to treat as Mr. Percivall has related in the first volume of "Hippopathology," and he will find his tinctures and his pledgets of tow and lint, together with his blisters and cauterizations, one and all of them ineffectual, and be compelled —as Mr. Percivall was—to resort to measures of a widely different and far severer character.—*Ed. Vet.*

† For authority on these surgical considerations, we have consulted the works of Messrs. Velpeau and Malgaigne.

violent inflammation of the parotid. To avoid this, Desault recommended compression on the gland itself, in order to dry it up, by atrophizing the sources of the salivary secretion. His proceeding, as well as that of Maisonneuve,—which, as we have already stated, consisted in establishing a compression on that part of the canal intermediate between the gland and the fistula,—was attended with bad results. Louis, Duphenix, Malgaigne, and Velpeau, rejected it, as frequently producing very serious disorders of the glandular tissue.

3d. *The twisted suture* has, according to the account of numerous surgeons, and especially of Percy, produced a cure in a very few days when applied to a fistula of recent date.

B.—The second method proposes to dilate the natural conduit of the saliva. Morand was the first person who practised it. It consists in introducing a stylet, furnished with a treble thread, through the exterior opening of the duct which is directed towards the mouth, following the course of the canal. Arrived at this point, the surgeon unrolls the thread, and ties the end of the little seton which comes into the mouth to the one which was left floating from the exterior opening, forming with the two ends a small knot on the cheek. On the following day he introduces a rather larger seton in a similar manner, and continues, from day to day, gradually to increase its size until the saliva passes into the mouth, and the ulcer becomes sufficiently diminished. He then takes out the seton, or rather, he draws it gently towards the mouth, so as to leave but a very short end at the bottom of the fistula, and one which does not pass through the external wound. The knot is not taken away until the fistula has become completely dried up by means of repeated cauterizations and desiccative applications.

This operation of dilating the natural conduit is not always practicable. On the contrary, it frequently happens that, at the period the surgeon is called in, it is impossible to discover the anterior end of the divided canal, which, not unfrequently, has been obliterated for a considerable time. It then becomes necessary to have recourse to a new operation in order to establish a new passage.

C.—This third method comprehends a great number of different courses of proceeding. Since the time of Deroy, who made use of a heated iron to perforate the cheek and obtain a fresh passage, almost all the surgeons who have been called upon to treat fistulæ of this nature have introduced some modification in the kind or form of the instruments. Duphenix made use of a long, straight bistoury; Monro of an awl; and Desault of a hydrocele trocar, &c. All these various modes of proceeding, and others that we shall pass over in silence, had for their aim the formation of a canal calculated to re-

establish the course of the saliva, and conduct it into the mouth, and at the same time to obtain a cicatrization of the fistulous opening. In the procedure of Deroy, after the fall of the scab, Duphenix introduced the quill part of a feather; Monro a seton; and Leroy a leaden wire. Other surgeons, as Lotta, Langenbeck, &c., recommend certain proceedings, so difficult, if not impossible of execution, and so little thought of among medical men, that it will be unnecessary to enter into any description of them.

M. Deguise had a very ingenious mode of proceeding, but one which must, we should think, be very painful to the patient. He, like Duphenix, made use of the trocar, which he carried to the bottom of the fistula, directing it obliquely from the top downwards, piercing the cheek in that direction, and, as much as possible, following the direction of the canal. The puncture being made, the instrument is withdrawn, and a leaden wire is introduced into the tube, and held in the mouth with two fingers. That being done, the tube is removed, recourse is again had to the trocar, which is again carried to the bottom of the wound, and the cheek is a second time pierced in another direction. By means of the tube from which the trocar has been removed a waxed thread is passed in, which is intended to draw into the mouth the leaden wire remaining on the outside, the tube having been first removed. The wire thus placed forms a curve, embracing the soft parts at the bottom of the fistula. The free extremities are re-united in the interior of the mouth: afterwards, when the external wound has cicatrized, the wire is withdrawn; and sometimes it is left to fall out of itself during the interval that the two openings are becoming merged into one.

D.—The fourth method proposes to atrophize the gland, by establishing immediate pressure upon it; but as this proceeding appeared to most surgeons difficult of execution, and not to be depended upon, Zang and Viborg have advised that a ligature should be placed round the canal, between the gland and the fistula.

This is a cursory view of the chief means recommended and practised for the purpose of curing fistulæ of the parotid duct. Were we to form an estimate of the value of each particular one—a task which does not come within the nature of our present work—we should find each of them to be attended with advantages and disadvantages, according to the divers aspects under which these affections present themselves. But, as general rules, the results of the preceding considerations will be as follow:—

1st, That the modes of treatment are, in the great majority of cases, exceedingly long.

2d. That the surgical operations required by them are delicate,

painful, cause the patients much suffering, and only promise a very tardy cure.

3d. That the application of many of them is liable to induce serious disease of the salivary apparatus.

4th. That cicatrization often does not take place until the functions of the gland are annihilated.

If it be true, as long asserted, that it is in surgery particularly that human and veterinary medicine come most directly and immediately in contact with each other, will it be irrational to admit, that the treatment we have employed with so much success in combatting salivary fistulæ of the parotid duct in the horse might be attended with equally favourable results if applied to the human being? We certainly have not the presumption to assert that our opinion has received the sanction of experience: full well do we know, from daily observation, that subjects which appear most seductive and feasible in theory utterly fail when brought to the test of practice. But, in this case, we cannot divest ourselves of a certain degree of hope, and confidently recommend that our treatment may, at least, be allowed a fair trial. If it has succeeded in the horse, where it is so difficult to restrain the motion of the jaws, to prevent the tongue from being constantly moved about, to feed the animal for any length of time on aliments requiring little mastication, and to prevent him from rubbing the part; if, under all these disadvantages, it is possible to obtain a cure, surely our mode of treatment must be crowned with success in the human being, where it is so easy to obtain a rigorous observance of all those conditions that tend so powerfully in our practice to bring about cicatrization of fistulous wounds of the parotid duct!

Without farther comment, we present our experience to the calm deliberation of those talented hospital surgeons who so often have an opportunity of observing accidents of this nature. We shall feel perfectly recompensed for our labour if our work serves to verify our motto: "s'il est vrai que, pour se constituer, la médecine vétérinaire a en récours à la médicine humaine, si journellement encore elle lui fait de nombreux emprunts, elle lui a toujours offert et livré en rétour, le fruit de ses observations, de ses réchérches, et de ses expériences."—*Recueil de Médecine Vétérinaire*, 1845, *Septembre, Novembre.*

THE VETERINARIAN, JUNE 1, 1846.

Ne quid falsi dicere audeat, ne quid veri non audeat.—CICERO.

THE unprecedented length to which the Report of the General Meeting—as received from our own reporter—has run, together with the publication in full of the Annual Report of the Council, has occupied so large a portion of our present number, that but little space is left for other matters. The General Meeting was better attended than that of last year: there were sixty members present. At the conclusion of his opening address, the President was reminded, that it would be expedient, conformably with custom on such occasions, to have read the minutes of the last General Meeting; and this was succeeded by a call for the reading of the Report of Council, a proceeding which seemed like taking up the time of the assembled members rather unnecessarily, seeing that it was the intention of the Council to publish their Report. No sooner, however, was the reading concluded than it became obvious the motion had been enforced to afford an opportunity for making an attack—a plan of which had been got up, already cut and cried, upon paper—upon every thing and every person mentioned in the Report. Such sweeping indiscriminate censure, while it was certain to fail in its object, was equally certain to meet its reward in the shape of rebuke; and rebuke it got, and of a character that will not readily pass away from the minds of those who were present to hear it. The result was, that the Report was carried by a glorious majority.

Among the members assembled there were to us several strange faces. There was one in particular which attracted our attention.

It had evidently seen more years than the majority of the others, and yet it was looking hearty and fresh, and seemed as though it could smile with the best of us. And, moreover, there was about the person to which the said face belonged, altogether a gentlemanly deportment, as well as venerableness of aspect, which prompted our curiosity to make inquiries who the member was:—It was Mr. Mills, THE FATHER OF THE VETERINARY PROFESSION!

The length to which the angry and needless discussion on the Report ran compelled the President to defer to too late an hour the important question to be considered by the General Meeting, of raising funds for the recruitment of the exchequer of the Chartered College. Several members had, in consequence, unfortunately departed before that business came on. By those who remained, however, the call was met in a truly manly and generous spirit, many names being at once put down as annual subscribers of sovereigns and half-sovereigns; a list to which we hope before long to have to record considerable additions.

Mr. Baker performed his promise. He brought the Annuity Fund question before the meeting; but he brought it for the present simply *pro formâ*. Under the circumstances of the unflourishing state of the finances of the general body, and the lateness of the hour before the question could be broached, it was on all hands deemed inadvisable on the present occasion to proceed with it.

NAMES OF THE MEMBERS PRESENT AT THE GENERAL MEETING, 4TH OF MAY, 1846.

Anderson, J.
Aston, T.
Ainslie, J. A.
Bass, E. T.
Baker, George
Baily, Edward
Braby, Edward
Bainbridge, George
Broderick, J.
Clark, Howard Thomas
Cherry, F. C.
Cherry, W. Arthur
Cherry, Alfred H.
Charles, Edward
Dawtry, John
Draper, Henry
Dexter, Thomas P.
Dick, William
Dunsford, John
Dyer, William
Daws, Harry
Ernes, William
Field, William
Ferguson, Pearson B.
Gabriel, E. N.
Gardiner, Benj. C.
Henderson, Alexander
Henderson, Alexander B.
Hayden, George
King, Francis, jun.
Loader, Thomas
Langworthy, J. H.
Mayer, Thomas Walton
Mayhew, Edward
Mitchell, John
Meginnis, William
Percivall, William
Pritchard, J.
Phillips, William
Rogers, Alfred J.
Siddall, Thomas
Salter, George H.
Simonds, J. B.
Spooner, Charles
Sewell, Josh.
Silvester, F. N.
Scriven, George E.
Turner, Thomas
Turner, James
Turner, Edward
Tombs, John
Tudhope, Daniel
Vines, Richard
Varnell, George
Waters, George
Walker, Thomas
White, George
Withers, S. H.
Wardle, William
Youatt, William.

MISCELLANEOUS.

Midwives and Veterinary Surgeons.

To the Editor of "Payne's Leicester Advertiser."

Sir—In your last number is an advertisement, by a Mrs. Frances Simpson, midwife, (of what place is not stated, suppose Leicester),for a pupil. She remarks, that "there are two male practitioners in midwifery who go out at a low charge, and many poor women have ventured their lives in their hands on account of it; but one of them has been rather unfortunate in his practice, and has been in jeopardy once or twice; the other's *(the cow doctor's)* charge is rather higher, and he has not had so much to do, and has hitherto escaped pretty well. If he ever has upwards of three hundred cases in a year, it will test *his* ability for midwifery." I know something of the gentleman designated "the *Cow Doctor*," and *en passant* would ask, is it any *salir* on him to be a member of the Royal College of Veterinary Surgeons, holding a Charter signed by Queen Victoria? He studied at Edinburgh with the celebrated accoucheur, John Thatcher, M.D., two courses on midwifery, and the diseases of women and children, with a dispensary in connexion; while the poor of the City were confined by the students under the superintendence of the doctor and assistants at their own houses. He subsequently was elected surgeon to a large parish, held that situation seven years, had at least 400 midwifery cases annually, and up to the present period has attended upwards of 4000 women in child-bed, without a single death; *his* abilities many years ago have been well tested, and some of his cases are before the profession: *vide* the *Medical Times*, vol. x, page 152, and vol. xii, page 104. Hippocrates, the father of physic, was a veterinary surgeon; M. Velpeau, professor of surgery and diseases of women at *la Charité*, in Paris, is a veterinary surgeon. Midwifery is indebted to a veterinary surgeon for the Cæsarean operation. In the year 1500, Eliza Alespachen had this operation performed upon her by her husband, who was a *cow doctor*, at Seigenhausen, in Germany: this is the first instance in which the operation was ever performed on a living patient with success. I could name twenty doctors of medicine and human surgeons that are M.R.C.V.S. He has frequently been called in by physicians, surgeons, and midwives, to assist them in difficult and dangerous cases.

As to his low charges, many poor women will not have midwives to attend them: his fees are according to the patients' ability to pay; and he has attended many poor women in this place and elsewhere *gratis*.

He fears no jaundic'd rival's envious breath.

I have the honour to be,
Mr. Editor,
Your humble servant,
LUCINA.

Leicester,
Feb. 4th, 1846.

LIFE OF A MEDICAL MAN.

THERE is not any career which so rapidly wears away the powers of life, because there is no other which requires a greater activity of mind and body. He has to bear the changes of weather, continual fatigue, irregularity in his meals, broken rest, and to live in the midst of miasma and contagion. If in the country, to traverse considerable distances on horseback, exposed to wind and storm, to brave all dangers to go to the relief of suffering humanity. A fearful truth for medical men has been established by the table of mortality of Dr. Casper, published in the *British Review*. Of 1000 members of the medical profession, 600 died before their sixty-second year, while of persons leading a quiet life, such as agriculturists or theologians, the mortality is only 347. If we take 100 individuals of each of these classes, 43 theologians, 40 agriculturists, 35 clerks, and 32 soldiers, will reach their 70th year: of 100 professors of the healing art, 24 only will reach that age. They are the sign-posts to health: they can shew the road to old age, but rarely tread it themselves.

EXPERIMENTS AT THE LYONS VETERINARY SCHOOL.

EXPERIMENTS are being made at the Veterinary School at Lyons, for preventing the communication of hydrophobia, and for curing this dreadful disease. A remedy, proposed by a person not belonging to the school, was tried, and produced the following results. A dog, fully ascertained to be in a rabid state, was made to bite five other dogs. Three of these animals were subjected to the treatment proposed. All of these were preserved from the malady, while the two others died in all the usual convulsions of the disease.

THE

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LAMENESS.

By WILLIAM PERCIVALL, *M.R.C.S.*

TREATMENT OF SPAVIN.

[Continued from p. 306.]

SPAVIN is one of those diseases improvement in the treatment of which has not kept pace with our advances in the science of hippopathology. We all acknowledge that new and bright lights have been thrown on the pathology of spavin; that we are now in a situation, through discoveries in morbid anatomy, of explaining that in the symptomatology and curability of the disease which before was inexplicable; and yet we have left, not merely unimproved upon, but undisturbed, our ancestors' plans of treatment: nay, hold them at the present hour in all the estimation they were formerly held. It may be matter of fact, that the experience of ages has but confirmed the insurpassable efficacy of the old mode of treatment; it is, however, strange, to say the least about it, that the very same remedies our forefathers employed with most success for the cure or relief of spavined horses, should, now that the disease has been proved to reside *within* as well as without the hock joint—to consist in *ulceration* and *caries*, as well as in *exostosis*—still maintain undiminished their good reputation. To remove any doubt concerning the antiquity of our present remedial agents for spavin, I shall make a few quotations from some of the old authors on farriery, beginning with Solleysell. "Bone spavin," says this father of veterinary medicine, "is a very dangerous distemper, and requires the most violent remedy, viz. the *fire*; and even this is oftentimes applied without success."—

"When the disease is *hereditary**, it is in vain to attempt the cure by any method than by giving the fire." Again: "No person can promise a certain cure in this case, or to make a horse sound that is troubled with spavin, by giving the fire; though there is *no other effectual remedy*†." From his quotation, we learn that Solleysell not only was fully acquainted with the potent efficacy of firing, but that in recommending it he was likewise aware how often, in cases of confirmed or inveterate spavin, we had to lament its inefficacy.

GIBSON'S ACCOUNT OF THE TREATMENT OF SPAVIN is really so admirable that I question whether a better stands on record: the perusal of it makes one almost blush for shame, feeling, as we must do, that it comprises nearly all we know, or at least practise, in the matter, in these boasted days of discovery and improvement. "The usual method," wrote Gibson, "of curing bone spavin is by blisters and firing, without regard to the situation or cause from whence it proceeds. If a fulness on the *fore part of the hock* comes from hard riding, or any other violence, threatening spavin, coolers and repellents only are proper."—"Spavins that happen to colts and young horses, are generally external and superficial, and may be cured with *milder applications than* what are commonly made use of for their removal, and with less danger of breeding callosities in the joints; for it is better to *wear out these maladies by degrees*, than to strive to conquer them all at once."

Gibson, with great good sense, objects to caustic blisters, which, "for the most part, leave a continual baldness, and often a remaining stiffness, which can never be removed," and recommends a vesicatory of a milder description in combination with terebinthinate mercurial ointment, which, to prove effectual, "must be often repeated, and so requires a good deal of time before the cure is complete and perfect." When a horse goes lame some time before a spavin shews itself, and at length a spavin is discovered "deeply situated and extremely hard," having its situation "among *the sinuosities*‡ of the joint," the usual practice is "to fire immediately, and to use the strongest caustic blisters, and sometimes to fire and lay the blister immediately over the part." I would, however, "first of all choose to try a more gentle method, because *horses are often worse after the use of forcible means to remove spavins than they were before*."—"And, therefore, if the owner can be persuaded to allow a *sufficient time*, the best and safest way is to make trial of some *mild* caustic or blister."—"However, some spavins lie so deep, and run so far *into the hollow of the joint*‡, that no applications

* The hereditariness of spavin was discussed at p. 123.

† Compleat Horseman, Part II, chap. cv, page 281-2.

‡ These expressions are of a nature to induce one to believe Gibson had seen disease *within* as well as without the joint.

can reach them, so as to make a perfect cure."—"A charge, or caustick ointment, *with sublimate or arsenic*, is the most likely to succeed in this case."—"I have known *some bold ignorant fellows* succeed in such cases."—"The same thing has happened by *firing deep* into the spavin."—"A true spavin in an old horse proves no less difficult; and in such cases, *firing all round the hock*, and afterwards turning them out to grass, is the most likely to succeed, so far at least as to fit them for some sort of business; though the stiffness of the hock will be but little abated, even if the spavin be removed, stiffness on bending of the joints being an infirmity to which all old horses are more or less subject, even where there is no manifest malady or disease*."

I have made my extracts from Gibson so full and lengthy, that my readers might see how much, a century ago, had been accomplished in the way of treatment of spavin; and now that they have perused this excellent account, I can entertain no doubt of the professional part of them, at least, being of opinion with me, that the veterinarians of the present day have little to boast of in the way of innovation or discovery in this department of veterinary therapeutics.

What did Coleman say on the subject? He took an anatomico-philological view of it, and said, "neither spavin nor splent was ever cured." By this he meant, that the fibro-cartilaginous tissue, which was converted by these diseases into *osseous* substance, was never re-converted into its original soft elastic texture, but for ever remained bone. Nevertheless, Coleman blistered and fired, the same as veterinary practitioners of the present day are in the habit of doing.

The important subject of the treatment of spavin conveniently resolves itself for our consideration into two divisions;—into the *curability of the disease*, and *the remedial agents most proper or likely to work a cure.*

The Curability of Spavin

Is a question the answer to which, to avoid blame thereafter, requires a good deal more of caution and circumspection than is apt to be given to it. When persons talk about "cure," it is for professional men to ascertain what meaning they attach to the word; whether by *cure* they mean restoration to perfect soundness, or simply that approximation to soundness which enables the animal to do his work, in effect at least, as well, or as much to the satis-

* A new Treatise on the Diseases of Horses. By Wm. Gibson, Surgeon, 1754, 2d edit.

faction of his master, as he did before he went lame. And it is still more especially the business of the veterinary surgeon, before he ventures to offer an opinion concerning the curability of spavin, to make himself correctly informed of the history, the duration, the degree of lameness, the aspect and feel of the tumour, &c. &c. of the case in question. It is for want of taking care to be furnished with these simple and obvious *data* for guides that young and incautious professional men too often suffer themselves to be caught, in a disease possessing such a fluctuation of character as spavin, faltering in their opinions, or giving such as are of a diverse or conflicting nature: the circumstances, past and present, being represented alike, and no omission of any one of them of importance being made, the case of spavin, difficult as it often is of prognosis, will hardly give rise, in the minds of experienced veterinarians, to any material difference of opinion. Coleman said, spavin was an incurable disease; but then he made cure to consist in restoration of *structure* as well as restoration of function. We restrict our notions of cure to restoration of function. We say, if we can remove the lameness of a spavined horse, or remove so much of it as will enable him to do that kind or amount of work which is required of him, that we have succeeded in rendering him serviceable, if not sound, notwithstanding he may "go stiff" when he first leaves his stable, and that exostosis may still be perceptible enough when we come to inspect his hock. And this is the sort of soundness to which spavined horses in general, when they are said to be cured, are restored. If I were to say that spavin in the end will prove to be an incurable disease, I should be asserting that which in the main has been found to be correct. Inveterate spavins rarely admit of any alleviation, even of their lameness; and such as have not arrived at that state of disease or inveteracy that precludes all hope of cure, have but too frequently their alleged "cures" followed by return and permanency of lameness. *Cæteris paribus*, a spavin upon the hock of a colt or a young horse is more likely to admit of cure than one in an old horse, the powers of restoration being greater in one than in the other. A spavin that is put forth on a sudden, and with which lameness is simultaneous, is more likely to be cured than one that has been long in coming forward—long in "breeding," as people say—and which has been preceded by lameness of a transitory character. This brings to our mind the old observation about those lamenesses being the most difficult of removal which steal gradually on our notice. Such lamenesses in their tardy advance bring with them two important pieces of information: they shew they cannot be the result of injury; at the same time they afford us pretty strong evidence in themselves of being the off-

spring of inward and insidious disease—disease of a nature that has been some considerable time coming to such maturity as to occasion pain, and that sufficient to produce lameness; and that will require—as most diseases, they say, require double the time to quit they take in coming—a more considerable time still before it takes its departure.

Persons bringing to us lame horses are naturally anxious about them, importunate to be informed not only as to the probability of cure, but as to the space of time the cure, supposing it to be probable, is likely to occupy in bringing about: they, of course, especially want to know when they shall be able to *work* their horses again, and, in their importunity to obtain as early a date as they can to this day of restoration to work, they are very likely to extract from the practitioner, at some unguarded moment, a promise of a shorter time being occupied in treatment than, in justice to his patient as well as to himself, he ought to have consented to. It is not impossible the veterinary surgeon may be requested to treat the spavin during the time the horse is at work, or with an understanding that a few days, or a week, or even two weeks, will be yielded for the process of cure. It is not to be denied that incipient cases of spavin do now and then present themselves, which—consisting as some or most of them at so early a stage probably do, purely in exostosis—are capable of being, in the course of a week or a fortnight, relieved to that degree that lameness almost or quite disappears, and that, therefore, the horse is naturally enough considered by his owner to be fit to return to his work: comparatively few, however, will the number of such cases be as will not return for medical treatment, and in an aggravated and even hopeless pathological condition, compared to what they presented in the first instance. The disease, which at first was confined to the periosteal tissues outside the hock joint, has now invaded the synovial membrane within, and the result is, ulceration of the articular cartilages covering the cushion bones: a sad addition has been made to the already existing disease; the case has become converted from one of a simple into one of a complex character; and the cure, if now practicable at all, has been thrown back weeks, if not months. The case of the troop horse (C 4), related at page 303, furnishes a good example of this proneness to relapse; and it is the more striking in this case, because what was deemed sufficient rest was at each period of fresh attack fully conceded. The same thing happens in disease of the navicular joint. Here is, as in spavin, ulcerative disease of joint; and whatever treatment be adopted, either in one case or the other, *rest*—absolute repose of the diseased joint—and that for a sufficient length of time, is indispensably required. The curability of spa-

vin so much depends upon an uninterrupted state of inaction of joint, that, as Gibson with truth assures us, with "sufficient time," *mild* remedies will succeed; whereas, without it, the severest will be pretty sure to fail. And, for my own part, I am very much inclined to the belief that the success derived from deep firing and blistering is in a measure ascribable to the extremely sore and rigid condition of skin produced thereby, rendering it for a considerable time, through the pain consequent on the act, next to impossible to flex the diseased joint. In confirmation of the expediency, or, rather, the necessity of rest, I may mention that I have, on many occasions, witnessed the happiest effects from confinement of spavined horses in stalls, persevered in to a great length of time; nor would I, for my own part, in a case where rest, and duration of rest, could not be obtained, counsel any veterinarian to undertake the treatment of spavin. Even under all favourable circumstances, he foreknows his liability to failure, and most assuredly it becomes a duty he owes himself, if not his patient, to diminish that liability to the uttermost. When consulted, therefore, on the curability of spavin, let the practitioner take care to bargain closely with his employer for sufficient time for *repose* for his patient.

A VISIT TO ALFORT IN 1844.

By M.

In the present age of refinement in every department of science, and more especially in those in which the principles of humanity are concerned—be they for man or beast—it might naturally be expected that, in our public educational institutions, those atrocious barbarities that have been too often perpetrated by our experimental physiologists would, in a corresponding ratio, have been improved or entirely laid aside. Far be it from us to discard the further adoption, or even the necessity of experimental physiology, for the more perfect elucidation of our knowledge of the functions of the animal organism; but its indiscriminate adoption on every, and in the most trivial circumstances, without any definite object being in view, or the experimenters themselves being possessed of that knowledge of structure and function which will enable them to understand their various phenomena, we cannot but most earnestly decry, and hold out to public sympathy. It may, indeed, be said, and with perfect truth, what would have been our knowledge at the present day in all those departments of practical medicine and surgery for which our age is so especially distinguished, had

it not been for experimental physiology and vivesection! To the affirmative to this we most fully concur; but that the young and rising members of the veterinary profession are to be taught, ankle-deep in living blood, by the "vivesection" of that class of animals on which they are, in after-life, to exert their professional skill, the structure and functions of their various organs, is what cannot for a moment be admitted by any one knowing thoroughly the elements of the science. We, on the contrary, affirm with every confidence, that no benefit has ever been conferred on practical veterinary medicine and surgery but by experiments having been conducted by veterans in its study, and where these were had recourse to under the most judicious and well-directed considerations. A child may be

"Pleased with a rattle, tickled with a straw;"

and so, it would appear, that in this present golden age of improvement it behoveth the directors of one of the most liberal and valuable of our veterinary institutions still to adopt and promiscuously permit their "young ideas" to be taught by the cruel, uncalled-for, and abominable practice of "vivesection."

We have been induced to make the above remarks in consequence of observing in a work published a few days ago, entitled "Notes and Remarks on Jersey, France, and Italy, by J. Burn Murdoch, Esq., of Gartincaber, Edinburgh, 1846," an account of a Visit to the Veterinary School of Alfort in 1844, and where the cruelties of "vivesection" still continue to be adopted as a method of teaching.

Mr. Murdoch, from his long and intimate connexion with the education of veterinary surgeons, and the enthusiasm and zeal with which he has made himself familiar with all the details of the schools in this country, and elsewhere, when opportunity offered, is especially qualified to judge*; and as his description of the "scene" he encountered is very short and graphic, we shall abstract it entire for the benefit of our readers:—

"I visited," says Mr. Murdoch, "the veterinary college at Alfort, June 17, 1844, distant a few miles from Paris. On my way to the Palais Royal, where I intended to hire a cab to carry me to Alfort, I met in the omnibus a very intelligent old soldier. Upon mentioning to him my intention of visiting the institution, he asked

* We may mention that Mr. Burn Murdoch has been for very many years the Chairman of the Veterinary Committee of the Highland and Agricultural Society of Scotland, and, until the obtaining of the recent Charter of Incorporation, presided over the annual examinations of the pupils taught at the Edinburgh school. Mr. Murdoch was not an "amateur" vet., but, on the contrary, studied the science as it ought to be, and passed many a good examination.

me if I had an order of admission. Upon being answered in the negative, he informed me that it was not shewn to the public; but he very politely gave me his card and introduction to the governor, to whom he mentioned, as an old comrade in the army, he was well known. It was fortunate that I had entered into conversation with this gentleman, his information being quite correct. I could not have seen the college without this introduction. His card shewed him to be a military man, holding the rank of Chef d'Escadron.

M. Blanc, the governor, was at home, and in the most polite manner went over the whole establishment with us. It is entirely supported by the Government, and, like all other institutions of the kind in France, completely under its control. There are seven or eight professors, and at present the number of students is 250. The course of study extends to four years. At the end of this period the students are taken on trial. If they pass the requisite examination, they obtain their diploma. If they are unable to pass, they are remitted to their studies for another year, and are then again taken upon trial; and if a second time unsuccessful, they are dismissed from the college.

The students all live in the building, and pay nothing. A large space of ground, or small farm, and a botanic garden, are attached to the College, on which are cultivated the several varieties of the most common agricultural productions, and the plants used in the different pharmaceutic preparations of the veterinary pharmacopœia, the students thus being instructed in practical, agricultural, and pharmaceutic botany.

The institution also contains a large hospital for dogs (which was quite full at the time), and a museum of anatomical preparations, formed on a very extensive scale. The grounds immediately around the building are tastefully laid out and planted, and, the day of our visit being fine, the students were dispersed in small groups in shady places, diligently studying a small manual, from which it appeared to me that they were committing portions to memory. The whole had, indeed, a very academic appearance.

I wish I could now bring my narration of what I that day there saw to a close; but I must not. Upon entering into what appeared to be a place of dissection, I found myself surrounded, *not by dead, but by living subjects.* It was a building or shed open to the air on one side, furnished with many strong pillars rising from the floor to the roof. Here lay *six*, if not *seven, living horses*, fixed by every possible mechanical device, by the head and feet, to these pillars, to prevent their struggling, and upon each horse were six or seven pupils engaged in performing the different surgical operations. *The sight was truly horrible.*

"The operations had been begun early in the forenoon; it

was nearly three o'clock in the afternoon when we entered the place, so that the poor wretches, as may be supposed, had ceased being able to make any very violent struggle; but the deep heaving of the still panting chest, and the horrid look of the eyes, *when such were, as yet, remaining in the head*, while the head itself was firmly lashed to a pillar, was harrowing beyond endurance. The students had begun their day's work in the least vital parts of the animal; the trunks were there, but they had lost their tails, ears, hoofs, &c.; and the operators were now engaged in performing the more important operations in veterinary surgery—such as tying the arteries, trephining the cranium, cutting down upon all the more sensitive parts, on purpose, as we were informed on expressing our horror at the sight, that they might see the retraction of the several muscles, by pinching and irritating the various nerves. One animal had one side of the head, including the eye and ear, completely dissected, and the students were engaged, when we entered, in laying open and cauterizing the hock of the same animal. What I have thus described was the result of the observation of a few seconds. *I grew absolutely sick, and hastened away from this abode of cruelty.*

"M. Blanc vindicated this practice upon the plea of its necessity for the advancement of science. A young medical friend who accompanied me, exclaimed "Je suis médécin moi-même,"—and no such practice is necessary. M. Blanc shrugged up his shoulders, giving a double hitch to his trapazæi muscles. He was not, he said, a "veterinarian;" he was merely the *military governor of the establishment*, and he had no right to interfere with the prescribed curriculum of study.

"I shall not insult the feelings nor outrage the common sense of my readers by dwelling upon the subject, or by using any arguments to demonstrate the non-necessity of such barbarities: I may, however, be allowed to remark, that, having been induced, through particular circumstances, to direct my attention for many years to the teaching of the veterinary art, I can, without the charge of presumption, take upon me to affirm, that such practices are not more cruel than they are unnecessary in the teaching or in the practice of that science."

Such, alas! is the melancholy state of affairs at the most noble veterinary institution in the world.

CONTRIBUTIONS TO ZOOLOGICAL ANATOMY.

By JAMES MERCER, *M.D., Fellow of the Royal College of Surgeons; Lecturer on Anatomy; and President of the Edinburgh Examining Board of the Royal College of Veterinary Surgeons, &c. &c.*

PART XI.—*Case of Inflammation, Induration, and Ulceration of the Os and Cervix Uteri, inducing Sterility in the Cow.*

[Continued from p. 37.]

IN the rural economy of this country, a deservedly high degree of importance is attached to the breeding and cultivation of our native breeds of neat cattle; and it is, indeed, perplexing and annoying to that breeder who, at much sacrifice of time, labour, and expense, finds that his best efforts prove of no avail, and that he is doomed to disappointment, from a state of circumstances perfectly within human control, were they but better known and more fully investigated.

Instances of sterility in the females of all our domesticated animals are circumstances by no means of unfrequent occurrence, and too often, and perhaps too long, has the explanation of such been deemed beyond human knowledge. Such conditions have often been found, indeed, in the female of the human race, and were also looked upon as being incomprehensible and incurable; but the rapid progress made in the investigation of diseases, and in the exploration of the morbid states of the deeper-seated cavities, by means of a physical and ocular examination, has brought to light many of these hitherto incomprehensible phenomena, and has placed them entirely within our control.

A very common cause of sterility in the human female has been shewn to depend on some morbid condition of the os and cervix uteri, and which state of parts is found to be easily within medical control; and it cannot be doubted but that many of the same cases in the lower animals depend upon the same condition. I here put out of consideration all such cases of sterility as may depend on a morbid state of the lining membrane, or the substance of the walls of the uterus, the cornua uteri, or those of the ovaria, considering that those consequent on a change in the os uteri are by far the most important in a practical point of view, and they are by far the most common in practice.

It is, indeed, to be regretted that, notwithstanding all the zeal for veterinary science displayed by our veterinary surgeons in all matters connected with the diseases of the horse, comparatively

little attention is devoted to those of neat cattle: and even in both classes of animals, the various facts which have recently been established in regard to the strange phenomena connected with the regeneration and reproduction of species have not been much taken advantage of, and still less have the morbid state of the organs been attended to, though opportunities for doing so are by no means seldom, and where the circumstances are usually most opportune.

The following case has been recently placed under my notice, and I have taken much care in the investigation of its morbid state. I deem it a case much in point to the observations above made, and one of much interest to the stock-breeder generally, and to the veterinarian in particular; and I feel assured that the attention of the educated veterinarian only requires to be directed to the subject, to place our knowledge of such diseases on a more proper footing. The morbid conditions and diseases of the reproductive organs, from the powerful influence exerted by them on the animal economy generally, demand as much special attention as those of any other class of organs; and as their means of diagnosis are simple and easy of application, so must their treatment be accordingly safe and successful. To such as would consult the best and most scientific works treating of such affections in the human female, I should fully recommend the careful study of the following:—Churchill on the Diseases of the Female (in the impregnated state); Lever on the Diseases of the Uterus; and Bennet on Inflammation, Induration, and Ulceration of the Neck of the Uterus.

A two-year-old quey of the Ayrshire breed, selected, most judiciously, for her general conformation and good points, was reared, and stinted to a prize Ayrshire bull, in the middle of April 1845; and in due time, in January 1846, dropped a very fine bull-calf, of uncommon promise. Nothing beyond the usual appearances was observed by the cattle-man during the period of utero-gestation, and she had only been once served by the bull, which, from the symptoms exhibited, was deemed sufficient. During her recent calving there was slight misplacement in the presentation of the calf; the high fore-extremity being knuckled back upon the trunk, thus giving rise to protraction of labour and to manual interference.

The delivery of the calf was, however, apparently safely effected, though some force was required in correcting its position; and, with the exception of not cleansing early, the cow, on the whole, recovered well. There persisted, however, a considerable muco-purulent discharge from the vagina, accompanied with acceleration of pulse, and general symptoms of febrile excitement; but, being put on a soft and mild mash diet, and having had exhibited two saline

drenches, all these abated considerably, and she was considered to get perfectly well again.

Within six weeks afterwards the animal again œstrated, and was put to the same bull, that was then serving in the district; but, after having been served, the symptoms of œstration still continued, and she was again put to him. This was repeated for four times, and without any effect in diminishing the tendency to bulling; and, the vaginal discharge having become increased and somewhat bloody in nature, it was thought that the cow would not hold, and further attempts were declined. A veterinary surgeon was called in, and examined the sheath and penis of the bull, but found no diseased condition there; and, having looked at the outer parts of the cow, saw no appearance of her having been bull-burnt, and therefore concluded her entirely amiss, and advised her immediate sale. The owner, however, did not do so, but determined to keep her on, and, consequently, put her out to grass at his earliest convenience; and it will be seen in the sequel, that, had the real disease been fully investigated, the animal might have been cured, and made, in a short time, as valuable as ever.

During all this time there still existed the muco-purulent discharge from the vagina; and, as was stated, after the repeated embraces of the bull it had become bloody, and still continued to be so. These symptoms, however, did not seem to excite any attention for an investigation of the deeper-seated parts, and the animal was allowed to go on unheededly. Having been brought into her hovel for a few days, she unfortunately came under the influence of the contagion of pleuro-pneumonia, and fell a victim to its ravages in a few days. The body was opened within twenty-four hours, and under the inspection of a medical friend, a former pupil of my class, who, at my request, carefully removed the entire organs of generation, and transmitted them to me for examination.

Post-mortem Dissection of the Organs of Generation.—The vagina was slit up along its inferior wall into the rectum. In the whole of its surface not the slightest morbid condition could be observed, except at its angle of attachment to the os uteri. Its entire surface was abundantly lubricated with muco-purulent matter; but this was not derived from its parietes, but from the os and cervix uteri. The passage of the urethra and the interior of the bladder were perfectly healthy. The caliber of the vagina was of the usual size, and no impediment seemed opposed to complete penetration.

In the os and cervix uteri, however, abundant evidence of disease was found. That portion of the uterus that projects into

the vagina was swollen, turgid, and hard, and of a size much more voluminous than usual. On laying open its walls, a very considerable ulceration of its structure was observed. This ulceration was entirely seated along the inferior surface. It commenced on the upper wall of the vagina, about half an inch from its attachment to the os uteri, and, after entering the os uteri, it continued along the superior wall for fully an inch and a half. Its breadth exceeded three-fourths of an inch; but the ulceration did not extend up into either cornu uteri. The entire structure of the os and cervix uteri was very much hypertrophied and swollen, and, indeed, before the canal of the uterus was laid open, the entrance into the deeper-seated cavities of the womb seemed entirely closed from that of the vagina. This abraded and ulcerated surface was very superficial; there were no tuberculations in its granulating surface, indicating a cancerous action or tendency, but the surrounding hypertrophy was very considerable. Except a slight degree of inflammatory congestion in the cornua uteri at their connexion to the body, these tubes were perfectly healthy and patent throughout. The ovaries presented the usual appearances of those of animals that have previously undergone the venereal orgasm. There were on the right ovarium three distinct cicatrices on the surface of the inserting peritoneal membrane, and on the left one. There was no evidence, however, of a true corpus luteum in either ovarium. There were several Graafian vesicles in either ovarium in a very ripe state; and there could have been no doubt, had the real cause of the sterility been at first appreciated and properly treated, but that the application of the bull, even after the period referred to, would have been successful.

Such being the pathological state of parts, it now becomes necessary to consider the morbid cause of sterility in this very interesting case.

It is well known to those amongst the veterinary profession who have studied the strange phenomena of reproduction, and have considered the causes of its prevention, that these may be arranged under two heads:—

First, Such as are consequent on a mechanical obstruction in the *viæ naturales* of the generative passages, viz. the vagina, the os and cervix uteri, and the cornua uteri; and

Secondly, Into those in which there is some malformation of the ovaria, in regard to their function of forming their generative elements.

In the present case, however, the sterility cannot be looked upon as depending upon the latter class, seeing that the state of the ovaria was healthy in the extreme, and not only had they supplied the needful, but they had abundance to spare. We must

look, therefore, to *the mechanical causes*, and there we shall find abundant proof. It was not in the vagina, it was not in the cornua uteri, that any obstruction was found; for had either of these been in the same healthy state, and with a healthy condition of the os and cervix uteri, impregnation must have taken place, considering the state of the ovaria. I attribute the entire cause of sterility, therefore, to the morbid state of the os and cervix uteri, blockading entirely the canal in their interior, and thus preventing the entrance of the spermatic animalculæ from the point of the penis of the bull into the healthy cornua uteri, and thence onwards to the Graafian vesicles of the ovaria.

That inflammation, induration, and ulceration of the os and cervix uteri do prevent conception from taking place, there can be little doubt of, even in the lower animals. That it is true in the higher orders is not, now, doubted; and if true in the one, it must also be true in the other. I have, therefore, every conviction that the cause of sterility in the present case was temporary, consequent on an obstruction in the os and cervix uteri, caused by the inflamed, indurated, and ulcerated condition of these parts; and that, had a proper diagnosis been instituted, all these might have been removed, and thus a valuable animal would have been saved.

It might be, perhaps, expected requisite for me to explain the best and easiest methods of exploring such diseases, of distinguishing their nature, and of applying the most likely method of treatment. These I shall do in a very brief description.

The modes in which the exploration and examinations into the state of the uterine passages are effected are by two means—first, by the "*toucher*," and, secondly, by the use of the speculum; and of these the "toucher" is unquestionably the most useful for the veterinary practitioner. First, then, by the "toucher" is to be understood the exploration of the condition of the walls of the vagina and the vaginal portion of the os and cervix uteri. This is not to be accomplished by the introduction of the finger, but that of the whole hand and arm, lubricated and prepared for such by careful anointing with lard. This I have found most easily accomplished by using the right hand in the examination, the operator standing on the nigh hip of the animal, the tail being held to the off-side, and the nigh fore-foot bent up in the hands of an assistant. The hand and arm having been lubricated, the points of the fingers of the examining hand are carefully to be inserted between the labia majora, in their long diameter, and after being completely introduced, the palm of the hand may be rotated to the pubic region, and, the points of the fingers being carried onwards, they may be easily brought in contact with the os and cervix uteri, the entire circumference of which they can easily comprehend, and

thereby distinguish any morbid condition that may exist. By such an examination, the practitioner ought to make himself aware of the general condition of the walls of the vagina and the state of its mucous lining; and he should also especially attend to the state of the structures of the os and cervix uteri. There can be little difficulty to an "experienced and trained hand" in detecting the enlargement of inflammation, the hardness of induration, and the rugged, irregular, and flocculent surface of ulceration; and these latter sensations, combined with the existing symptoms, and especially with the nature of the discharge, should leave little doubt as to the real nature of the disease, or the method of treatment that should be adopted.

Secondly, of the use of the speculum, in the investigation of the diseases of the females of the lower animals, there can be no doubt of its efficacy, though I have not, as yet, seen its application in the treatment of such diseases.

There will, and must be, somewhat of a difficulty experienced in the exploration of the uterine diseases in the female of the lower animals by such a means; but I have no doubt of its successful employment. The depth of parts proves, from the experiments I have made, to be a great barrier to its use; but I have little doubt that, in a short time, such a method of diagnosis will be as much had recourse to, and attended with as much success, as has followed its use in the treatment of the uterine diseases of females. As to the treatment that should have been adopted, this should have been upon the simple principle of the treatment of ulceration generally. Scarification instead of leeching of the os uteri, the use of a mild caustic to the ulcerated surface, both of which could have been easily applied through a tubular glass canula, and the use of mild vaginal injections, would have constituted the whole treatment; and I feel assured that, had such a diagnosis been obtained, and such a line of practice adopted, there would have been the best anticipations that a perfect recovery would have been effected.

EXTRAORDINARY MODE OF TAMING AND BREAKING-IN HORSES.

By a Spectator.

As in medicine so in horse-breaking, there are those who, despising the high roads of science, attain their objects through by-ways and short cuts, to the surprise of all us regular scholars, who

are taught to proceed step by step, according to the discipline of our respective schools. Some years ago, a man by the name of Sullivan, a horse-breaker at Cork, made a great noise in the horse world from his possessing the art of charming vicious horses into tameness and obedience; and, from its being imagined his charm was imparted through *whispering* into the ear of the restive animal, he was designated "The Whisperer." From Mr. W. Townsend, however, who first gave us an account of this aural charmer of the equine race*, it seems pretty evident something besides "whispering" took place between him and his *protegé;* for after having been shut up with a horse who was unquiet to shoe for about half-an-hour—his usual practice—"I observed," says Mr. Townsend, "that the animal *seemed afraid whenever Sullivan either spoke or looked at him.*" And I have heard from another quarter on which I can place implicit credence, that, at the end of the interview between Sullivan and the refractory horse, both parties manifested such unequivocal signs of agitation and exhaustion as left no doubt whatever of some most severe contest having taken place between them.

M. Leonard, the hero of our present narrative, disdains all secrecy. He hesitates not to declare and manifest to the world that his mode of taming and breaking consists in inspiring a fear, which may truly be called terror, into the breast of the wild or vicious animal, under the full influence of which that whereto the animal has shewn the greatest repugnance or dread beforehand is to be received or approached with perfect calmness and resignation, though not, perhaps, with entire intrepidity. M. Leonard professes by his art not only to break-in horses of any age, temper, or vicious propensity, but to tame wild beasts as well, of the most ferocious nature, with not more than three or four notable exceptions, one of which I understood to be the rhinoceros†.

The first exhibitions of this great tamer of beasts, wild and domestic, took place at Mr. Field's establishment in Oxford-street. The one at which I was by mere accident present came off in the riding-school at the barracks in Hyde Park. On my admission into the school—where I found a few of the military and some half-dozen persons in plain clothes—I saw M. Leonard, whom I immediately recognised from having seen him enter just before, standing with four or five assistants in a ring around a well-bred

* In the Statistical Survey of the County of Cork.

† The hyena I believe to be another. M. Leonard kept two dogs shut up for ten days with a piece of liver before them, which, being instructed not to eat, they refrained from touching until the time arrived when they were visited, and had permission given them to consume the liver, and then they ravenously ate it up.

looking horse, which I was given to understand belonged to the Marquis of Titchfield. The animal had been turned loose with his saddle and bridle on, and to me had the appearance of being frightened; and yet he stood still; when all of a sudden, and to me quite unexpectedly, though not so, perhaps, to him, was cast at him a white-looking ball, about the size of a small orange, beset with sharp spikes. The ball struck him forcibly on the muzzle, but, to my astonishment, produced no other effect upon him than a chucking up and down of his head. It afterwards appeared that this ball had been thrown merely by way of a reminder, he having in previous lessons been taught the use of the pricking projectile. Standing, however, in the position the animal was, with his limbs stretched apart, and gazing with a wild and watchful stare about him, it was manifest to everybody looking at him that he awaited but the opportunity to make his escape out of the beleaguered circle. At length he discovered an opening, and past his sentinels he boldly rushed, and round the school he galloped, pursued by M. Leonard, and his aids-de-manège, pelting, all of them, the runaway animal with all their might and main, with the spiked balls, with which it appeared they had had their hands and pockets liberally charged beforehand. The faster the horse galloped, the more he got pelted; the more he was pelted, the more he got frightened; until at last, strange to say, fright absolutely drove him once more, as into a place of refuge, into the hated circle. And there he stood, panting from fear and exertion, agitated over his whole frame, and looking—*pauvre miserable!*—any thing but an object for further punishment and intimidation.

I was now desirous—indeed I had hardly had an opportunity before—of examining the punitory missiles which had achieved such extraordinary submission and resignation. I found them to be wooden balls, through the substance of which had been driven iron spikes or pins, whose points, as sharp as spur rowels, projected from an eighth to a quarter of an inch from the surface of the ball. Upon one ball I reckoned thirty-two spikes. The balls, in fact, resembled, more than any other thing I can compare them to, horse-chestnuts with their prickly capsules on.

To return to the scholar of this ruthless schoolmaster: any fresh break away he essayed to make, while M. Leonard and his assistants were walking and talking around him, was at once met by a prickly projectile; and the part aimed at on such occasions as this, while he stood quiet enough for aim to be taken, was invariably his muzzle, that being the most sensitive external part: whenever he had once broke, however, and got to galloping about the school, shots were fired thick and fast at every or any part, the object

then being to strike somewhere, and strike hard. At length, exhausted, as much, it appeared, by fright as by effort, and foiled in every attempt to get out of the reach of his assailants, the animal once more stood within the prescribed circle, without, seemingly, any inclination to quit it again, and was now quite obedient to the loud and angry *ho!* of the maitre-de-manège, who had frequently, in the course of the lesson, made use of the same sonorous and repressive exclamation, though not with the same effect as now. Now, therefore, was the time arrived for putting the animal through the exercises, which, it appeared, were to serve as tests of his implicit obedience.

The first trial to which he was put was the cracking of a post-boy's whip around him, behind him, and immediately under his nose; all which he bore with extraordinary fortitude, his courage, as it seemed to me, having been forced up to this sticking point by the dread he felt of any renewal of attack with the spiked balls. The second trial he underwent was also one of sound. But this time the sound was of a nature and intensity almost to stun the spectators, much more the excited object of the experiment. It was no less than the noise made by a wooden rattle of enormous dimensions—a sort of monster rattle—the horrible crashing sounds issuing from which were enough to split the *membranæ tympani* of all present. The apprehension, however, the horse was already under of a repetition of the pelting, appeared to operate too strongly upon his nervous system for him to summon courage to move from his place, or indeed to shew any emotion save that of simply chucking up his head, and so flinching, every time the rattle approached his muzzle. The third test of his submissiveness was blowing peas at him with all the force of breath (and that, we presume, is not feeble) M. Leonard could muster, through a pea-shooter of extraordinary magnitude. First, the peas were shot at his side, then at his quarters, from directly behind him, in which to him invisible situation, they, coming against him suddenly as they did, created, at first, some considerable alarm and crouching: this, however, was soon appeased by exclamations of *ho!* and threatenings of peltings; so that, afterwards, the shootings at the head failed to excite any emotion save chucking up or flinching.

The fourth and last ordeal proved the triumphant one: it was no less than to pass unflinchingly through fire and flame. A truss of straw was brought into the riding-school, unpacked, strewed about, and then set light to; through which, in a state of flame, the animal was made to pass and repass by one of the assistants who had mounted him, as well at a walk as at a trot; and it was no less matter of surprise to everybody present to behold with

what apparent indifference the horse faced the fire, than of evident satisfaction and pride to *Monsieur le maître du manège* to witness such conquest achieved through his art.

The scene I have been attempting to describe occupied altogether about a couple of hours in its performance, by which time there appeared to be produced in the animal that degree of subjection (exhaustion?) necessary to render him obedient to any act or forbearance that might be required of him, however repugnant such act by nature or dislike might prove to him, this being the apparent end for which the previous part of the lesson had been instituted. The avowed object was to break the horse into harness, a situation which heretofore had proved unbearable to him.

By way of preparation, a skeleton harness was first put on, and to the breeching of it a couple of spiked *rouleaux* were attached, which played against the horse's quarters whenever he moved his hind limbs, especially when he jumped or kicked. Soon afterwards a cart arrived, and the animal was put-to in it. No sooner, however, did he find himself once again harnessed to a carriage—the situation of all others to which he was said to have the greatest aversion—than his repugnant nature boiled fresh up within him, and got the better of those good feelings of obedience and submission which the spiked balls of M. Leonard appeared to have engendered in him; and the consequence was—*diable l'importe*—he stubbornly refused to stir an inch from the spot where he stood. Such a renewed act of insubordination was not to be borne. The pelters fired away at him with refreshed vigour; ball after ball flew at his muzzle; while M. Leonard, hurriedly searching in his box of apparatus, produced an awful fresh tormentor, in the shape of *a spiked bludgeon*, with which he belaboured the *mechant*'s sides until the blood oozed out. The animal still refused to advance; when at last descended so heavy a blow, that the staff broke and the horse bolted. Being once got into a humour to move, he was reined in and pelted afresh, and in the end made to trot quietly with the cart behind him, up and down the road in the park, in front of the barracks, to the satisfaction of his noble master, and the evident delight of *Monsieur le maître du manège*.

The next day the animal was to take another lesson, seven in all being required to complete the course. To-morrow came, but our expectations were damped by the intelligence that the horse was too unwell to leave his stable.

In being a witness of such strange, severe, castigatory treatment as I have been detailing, I must confess there were moments when I would willingly have interposed to shield the poor brute, vicious and restive as he was represented to be, from the painful punctures and contusions inflicted by the balls hurled at him; and

yet, when I came to reflect, if we are to tame wild beasts and to quiet horses by inspiring them with terror, this, probably, is as summary a way of proceeding as any, and not, after all, so cruel as others that might be mentioned. For instance, it was said that Van Amburgh awed his lions and tigers into submission through being armed with a red-hot iron staff. It is pretty certain that the Irish whisperer practised cruelty in some form, and that not of a mild description. That the blows from the spiked balls caused both contusion and puncture, with more or less pain, will not be denied. This, however, is all the immediate or topical injury they did, through which, comparatively trifling in itself, they engendered in the animal's system a sense of fear of that intensity that awed him into obedience to the performance of acts by nature or habit most disagreeable to him. The Duke of Newcastle's maxim was—We must make our horses fear us to love us, and, taking the various systems of breaking and managing horses, the inspiring of fear will be found the grand object of their divers practices and contrivances; love being but a secondary or minor ingredient in their composition. In South America, where the wild horses caught with the lasso are to be summarily broken-in for use, the method of doing so, is to put a saddle and bridle on the wild animal while he is entrammelled by the lasso, and then place an expert rider upon his back, and so mounted, suffer him to rise upon his feet. Should his plunges after being unshackled for liberty dismount his rider, he is again cast and mounted without a minute's loss of time, and the combat between him and his rider renewed: and thus the breaking is persevered in until conquest and submission are attained.

In our own country, wherein castration is so extensively practised, and colts and fillies are from their very birth housed, and more or less handled, and thus prematurely rendered tractable, such harsh breaking is not called for, neither is it practised; although the old method of breaking was, as far as whip and spur and bit are concerned, severe enough amongst ourselves, and still is in some parts of the rural districts practised with the same rude severity as ever. There can be no doubt, that a great deal of the breaking we are saved in this country arises from the domestic handling the colt so frequently experiences from his very colthood. By early handling, horses of good temper become, with a little training at the proper age, sufficiently quiet for use; and such as are of bad temper have, by kind usage, their vicious nature so far at least altered, that few of them turn out afterwards unbreakable by the ordinary course of manege.

It has been suggested by many humane equestrians, that we should adopt a mode of breaking founded entirely upon *love*—

upon acts of kindness, coaxing, and reward; and such has before now been, and on the worst of subjects too, practised with signal success. For the accomplishment of this, however, time and patience are required to an extent beyond what horse-owners in general could possibly spare for such a purpose, as well as beyond that which few gentlemen, who could afford to give up their horses so long, would probably consent to. A case is related in Mr. Youatt's work on *Humanity to Brutes* quite to the point. There was, many years ago, a horse purchased for the service of the Royal Artillery at Woolwich, whose vices were of so outrageous and dangerous a nature, that the rough-riders, one and all, after reiterated contests with him, declared him to be unbreakable. Being reported *incurably vicious*, the animal was cast for sale. Colonel Quist, however, who was at that time in command of the riding-house department at Woolwich, requested permission to take the vicious horse into his own troop, to endeavour to effect that which the rough-riding had failed to accomplish. Laying aside all harsh discipline, he substituted not a merely mild but a kind and remunerative course of manege, taking care to feel his way, and "not to ask too much" in any single lesson; and the result was, after a long and patient course of breaking, that the horse not only lost every vicious inclination, but absolutely became the most tractable and docile of any horse in his riding-school.

SINGULAR LENGTH OF INTERVAL BETWEEN THE BIRTHS OF TWIN CALVES.

By Mr. CHARLES BLAKE, *Crewkerne, Somerset.*

ON the 23d of April, 1846, I was send for to attend a cow, the property of Mr. Bidgood, a farmer, of Merriott. I ascertained that she had given birth to a fine calf *three days previously*, and had cleansed, and seemed perfectly easy until within a few hours past. She was now straining violently. On examination, I found she would soon give birth to another calf without assistance. She was left to herself, and in a short time did so, cleansed immediately after, and both cow and calves are doing well.

What could have been the cause of the length of time between the birth of the first and second calf?—for the cow required no assistance in either case, nor was there any irritation or straining from the birth of the first until a short time before the arrival of the second calf. If you consider the case worth inserting in your valuable Journal, it is at your service.

CASES OF STRANGULATED SMALL INTESTINE IN A MARE, AND BROKEN LEG IN A BULLOCK.

By Mr. JOHN YOUNGHUSBAND.

THE following case being one not often occurring in practice, and one quite new to me, I have forwarded it for insertion in your valuable periodical, along with one of minor importance, though not less rare. On the 21st of May last, I was requested by one of my employers, Mr. R. Robinson, of Sowerby Row, to visit one of his working mares that was attacked with what was supposed to be violent colic or gripes.

On arriving at the farm, and viewing the patient, my first inquiry was to ascertain the history of the case, which proved nearly as follows :—After having been fed at noontide, and water allowed after feeding, as is generally the case with most agriculturists in my neighbourhood, she was put to her usual work at the plough; when, after having laboured for the space of half an hour, she began to shew symptoms of uneasiness, and appeared unwilling to proceed with her work. In a short time, while drawing along, she suddenly stopped, fell down, and would have rolled over but for the timely interference of the ploughman, who managed to get her upon her legs again; when she walked on a short way farther, still, however, shewing great uneasiness. He succeeded in getting her along to the end of the furrow: there she as suddenly dropped again, and it was not without great difficulty that he disengaged her out of her gear.

On getting her home, finding her no way improved, she was bled by one of the sons, a ball administered, composed of tar and some other ingredient of which I have no knowledge; and as she was perspiring freely, she was well dressed, and a cloth thrown over her, and time allowed to see the result.

Two hours passed, and no amendment having taken place, I was sent for. I found her with all the symptoms of what I considered to be a severe attack of inflammation of the bowels, and that in a form which portended certain dissolution.

The eyes were dull and sunk in their orbit; ears, mouth, and legs, deathy cold; pulse small and indistinct; and a violent perspiration is pouring from every quarter. At times she lies down with her legs and feet under her; then raises herself upon her fore parts, stretches herself out as if in great pain, suddenly rises and sits up upon her haunches, and groans piteously, but never attempts to roll over.

My patient having been bled, and that freely, and the pulse not warranting any farther abstraction of blood, my first proceeding was to administer a dose of pulvis opii cum ol. lini; and as the bowels had acted twice and freely during her illness, I forbore the use of injections (which at times in this disease I have seen cause much pain), but had her body and legs well rubbed, and that until she was nearly dry, after which she appeared to be much relieved, though, as soon as the dressing was discontinued, the perspiration flowed as freely as ever. I continued with her about two hours; still she manifested much uneasiness, groaning, stretching herself out, turning her head towards her side, gazing anxiously.

I now told the owner that I had no hopes of her recovery; that there appeared to be something connected with her illness which I could not account for; but that I would administer another dose of medicine, and then, having other engagements, I should be under the necessity of taking my leave; at the same time I left a dose or two of medicine, which they could administer if she still survived. This rather startled him, seeing that the mare now appeared to be in less pain than during the fore part of her illness. He wished to have her bled again, in answer to which I gave it as my opinion that the withdrawal of blood would be attended with certain fatality. Nevertheless, he desired it, and in compliance with his wishes, but against my own better judgment, I did bleed her; and according to my prognostication so it turned out; for, before we had taken away three pints of blood, and at the very time I was feeling her pulse, she was seized with a trembling, her head drooped, she sighed, and appeared ready to fall. In a short time afterwards she seemed to have lost all consciousness, thrusting her nose between the staves of the rack, and supporting her body by leaning against the sideboards of her stall. Having stood in this posture awhile, she lay down, and remained all but motionless. In this state I administered a stimulant, the effect of which was to cause her to rally for a short time, so much so indeed, that before leaving I had her up again, when she stood, and to an inexperienced eye seemed relieved, though, according to my view of her case, she could not long survive. Now, therefore, I departed: but, living a good way off, I let the owner know, that, if she died, I should be glad to make a *post-mortem* examination. Early next morning a messenger came to let me know that she was dead. She survived but two hours after my departure, remaining in the position I left her in until she fell to rise no more, and dying without a struggle.

Post-mortem appearances about eight hours after death.—On laying open the abdomen, an unusual quantity of water made its escape. The bowels were much inflated with gas, but in no part contained an unusual quantity of aliment. The symptoms altogether

were those of inflammation running on to mortification, and this was general throughout the greatest portion of the intestinal canal.

Prosecuting my examination I found a portion of gut strangulated, causing inflation by gas of the proximate parts to about the size of a foot-ball.

The strangulated portion was encircled by a band forming a loop, which, before being loosened, drew so completely up, that the smallest particle of aliment could not pass through it.

Now, whether the strangulation had taken place in the first instance and caused these symptoms, or whether inflammation had taken place in the first instance from the effects of the tumbling, and the intestine becoming impacted, I leave to wiser heads to decide, not offering myself any conjecture.

The second case is merely one of broken leg, which I was called upon to reduce, or, in country language, to *set*. The patient, a two-year-old bullock, accidentally got entangled in a bushy covert, and fractured the large metacarpal bone of the near hind leg, literally shivering it to pieces. Upon my seeing the patient, and viewing the case, I saw no probability of reducing the fracture so as to accomplish a cure, and I advised that he should be destroyed. But the owner, a humane man, would not consent to this. I told him I would not take it in hand, as I saw no chance of a cure; but, if agreeable, I thought we could amputate it, and then it would be more likely to do well, and the animal, in the course of time, become fit for the butcher. To this he readily consented. So we immediately prepared for the operation, the minutes of which I need not give, except to say, it was not long in being performed. The two flaps of skin that were preserved were drawn over the end of the stump, and secured by stitches and bandages rolled over them. The beast was let loose. A little thin gruel was offered, which it drank with avidity. From this time to the end of the cure no untoward symptom took place, save a little superficial swelling, which was readily reduced by the usual means. In about six weeks, or a little more, the wound was nearly healed, the beast doing very well, and travelling remarkably adroitly upon three legs. No great length of time will make the animal fit for the butcher.

GLANDERS AND FARCY COMMUNICABLE BY *INFECTION* TO THE HUMAN SUBJECT.

By SAMUEL BROWN, *M. R. C. V. S., Melton Mowbray.*

Gentlemen,—I CONCEIVE that the generally received opinion, both in the medical and veterinary professions, respecting farcy and glanders in the horse, is that that pest of the equine race and loathsome disease to man is only communicable to the latter by inoculation: but the two fatal cases of farcy that have so recently occurred in Melton, would lead us to suppose that the human subject is capable of taking either of those similar diseases by infection.

The patient, whom I saw several times during the progress of the malady, was Thomas Whitaker, whose case was clearly one of inoculation. The poor fellow was bald-headed, and received a slight scratch on his scalp which cost him his life. He recollected wiping the perspiration off his head several times with his dirty hands; and as the scratch in his scalp first shewed the true characters of a farcy ulcer, there can be little doubt as to the inoculation having taken place at the time of skinning the farcied horse. This patient was a pitiable object and great sufferer in the latter stage of the disorder, and survived the inoculation twenty-one days.

Robert Pick, an old, faithful, and, I believe, valued, servant to the gentleman who owned the farcied pony, was the subject of the second lamentable case, which is considered one of infection; and the infection is supposed to have been conveyed by the fœtid breath of the animal, while the poor man was in the act of giving some mucilage of linseed to the pony a few hours before his death. A few days after the death of the pony, Dick complained of being unwell, and of having pain in his knee. At first the pain was regarded as rheumatism, but ultimately proved to be that of farcy, as that disease shewed itself in its true character and virulence, which ended the suffering patient's life on the twenty-second day after he had inhaled the fetid breath of the animal.

It is unnecessary for me to occupy your pages by detailing the symptoms of farcy and glanders in the human subject. Suffice it to say, that they are similar to those which characterise the same diseases in the horse; and that they are accurately given in the last number of THE VETERINARIAN, as abstracted from the works of Professor Hasse.

My object in sending you this communication is to shew the necessity of our taking every possible precaution as regards farcy

and glanders in the horse; not only as it concerns our personal safety, but also that of those persons who may chance to be exposed to the baneful influence of such dangerous contagious diseases. For when we reflect on the susceptibility of man to the virus of farcy or glanders, the incurable nature of those diseases, and the imminent danger to which he becomes exposed when taking care of such dangerous animals, we ought, in my humble opinion, to make the pecuniary advantage of our employers a secondary consideration, and advise them to destroy horses affected with either of those diseases with as little delay as possible. The value of a horse's carcass ought to be regarded as a trivial consideration in comparison with the hazard of sacrificing human life, and the probability of occasioning domestic bereavement, as well as endangering the veracity and respectability of the veterinary profession. Moreover, as farcy and glanders are foreign diseases to the system of the human subject, they must necessarily be regarded as loathsome; and, on that account probably may excite in the mind of the unhappy patient such abhorrent and repulsive feelings as are unsuitable to the inevitable fate that awaits him.

Perhaps we may regard the general swelling of a leg as the precursor of farcy; and although the swelling may subside from the effect of medicine, still in such cases, it behoves us in common prudence, and as veterinary practitioners, to make known our suspicions respecting the latent poison of farcy, which may shew itself at no very distant period with all the virulence so peculiar to that disease, and endanger both the lives of unsuspecting people and valuable horses.

Gentlemen,
Your's truly.

June 15, 1846.

EXTRACTION OF AN EMPHYSEMATOUS CALF, AND PUNCTURE OF ONE OF THE UTERINE VEINS.

By Mr. W. A. CARTWRIGHT, *M. R. C. V. S., Whitchurch, Salop.*

ON the 8th of April, 1846, I was sent for to a cow that could not calve. I was ordered to make haste, as she was momentarily expected to die. I arrived there in a short time, and found that persons had been trying to get the calf away for several hours, but could not succeed. The two fore-legs and head had been got out, but the latter they had, foolishly enough, cut away. The parts presented were emphysematous, and, of course, much enlarged.

I secured several hooks into the neck, so as to pull at them. I next slipped both the fore-legs from the body at the shoulders, and they came away by using moderate force. We now pulled at the neck by the hooks we had inserted, and got it out as far as the chest. I then removed the thoracic and abdominal viscera and some of the ribs, and, by using somewhat severe force, we extracted the calf, which was emphysematous all over, and most probably it had been dead a fortnight. After we got the calf away, a large tumour (part of the vagina) protruded out at the "shape," that looked black, and as if there was extravasation of blood underneath, and which I thought proper to scarify and puncture, as I fancied that it might cause irritation and straining. After having scarified it in two or three places without any thing coming out, I made two or three punctures, perhaps half an inch deep, and from one of them there issued a large stream of blood, quite as much as from some large artery, and it made a whizzing noise. I became alarmed. I put my finger into the opening, and found it went into a bloodvessel large enough to admit of one's fore-finger. From its feel I imagined that it was a vein that was opened, yet, from the jetting way it issued out I thought it was an artery that I had punctured.

I put two sutures into the wound, and forced the protruded parts into the vagina, had a truss and pad put over the parts, and ordered her to be watched in case hæmorrhage came on. She was now very much exhausted, and lay with her head down at full length. I forgot to mention, that before I arrived she had been tapped in two places in consequence of tympanitis.

10*th.*—No hæmorrhage has taken place. Is very ill. Sent an aperient and some fever medicine.

11*th, eleven* A.M.—Respiration very short; pulse 116; is in pain, and restless. Three P.M., died.

Post-mortem examination.—On the following morning I opened her, to see what vessel had been punctured.

The uterus had contracted as much as it could for the retained placenta. It was very much thickened, and between its muscular fibres and in the cellular tissue there was great effusion of serum and lymph; and in some places, especially towards its neck and in the vagina, there was extravasation of blood.

The placenta, within the fundus, was firmly attached, and would not have come away for some days. That about its neck was loose and separated.

I now laid open the tumour that I had punctured. The stitches had kept firm hold, but on separating them I laid the parts open, and clearly ascertained that I had punctured a very large *vein*, but which had contracted a good deal, and contained some coagu-

lated blood. There was a large artery close by it, the size of a goose-quill, but which was not injured. Within the abdomen there was about a quart of bloody-coloured serum, and also a long skein of coagulated blood, most probably from the tapping. I have repeatedly noticed that, where there has been long and excessive straining, there has been extravasation of lymph between the diaphragm and second stomach: so there was in this instance.

The lungs were a good deal congested. The bladder contained about a quart of urine. It was sound; and there was no swelling or obstruction about the meatus.

Observations.—This case shews the folly of ignorant persons interfering and meddling with veterinary midwifery cases; for I think there is not the least doubt that, had I been called in at an early period, I could have saved the cow.

I have related this case, in a great measure, to teach us the lesson of caution in making any punctures in these parts, since we may lay open some large bloodvessel, as I did, and run the risk of bleeding the animal to death. There is no doubt that I laid open one of the large vessels that return the blood from the uterus. During the period of utero-gestation the vessels are numerous and very large. I must confess I was highly fearful that, had the cow lived, the sutures would have given way in a few days' time, and hæmorrhage ensued; yet I was in hope that the bloodvessels would diminish in size as the parts contracted after parturition; and I am almost inclined to believe, from the appearance of the vessel and the puncture, that hæmorrhage would not have taken place, as the wound was pretty firm, and the vessel contracted a little.

MR. BARLOW'S ANSWER TO MR. MAYHEW.

To the Editors of "The Veterinarian."

Gentlemen,

In The Veterinarian for June, there is a "letter" from Mr. Mayhew, purporting, by its title, to be a reply to a paper of mine which appeared in the previous number. In noticing this "letter," I have, in the first place, to thank Mr. Mayhew for the testimony which he bears to my talents; for his charity in attributing my style of writing to carelessness, rather than ignorance; and I could have desired to thank him still further, had I been able to see throughout the whole of the "letter" where "my name so often appears," any thing that might assist me in rightly understanding

the object that induced him "to put pen to paper." But, "guessing" at his *motives* and *meanings*, there is still one essential thing, "*especially* valuable where controversy is invited," which he seems to have forgotten,—and that is, a consideration of the *question* under discussion.

Mr. Mayhew adopts an easy way of saving himself the trouble of replying to my "statements," by pretending that the unintelligible manner in which they are expressed "precludes the possibility" of his doing so. The remarks I made, although, like some of Mr. Mayhew's, containing "obvious errors," both verbal and of the press, were nevertheless intelligible to others, perhaps less learned than he. A "little learning is a dangerous thing," however; and I doubt not, when the "essentials of language" become as familiar to Mr. Mayhew as the sciences of anatomy and physiology, that he will be able successfully to "guess" at the meaning of my statements, or take refuge behind a more plausible subterfuge for avoiding to answer them than his present one affords him. He is, in fact, almost deprived of his amusing pretext by his own "letter," which throughout virtually admits that its writer understands the "majority of the sentences" I employed in my paper: this is as much as can be expected.

Availing myself of certain passages in Mr. Mayhew's "letter," I might pursue the same course regarding him as he adopts towards me, and consider *myself* disqualified from "replying fully to his statements." Take such sentences as the following:—

"*That he had seen what I discovered without his assistance, I never meant to assert or deny.*"

"*That he knew that which I learnt myself, I did intend to imply or to contradict;*"

and "the writer must excuse me when I say I cannot comprehend" their meaning. It would not, however, on this account, be consistent with the "kindly feeling" which I would ever wish to preserve towards *discoverers* in science, were I to consider a "letter" emanating from one of them as *entirely* unworthy of notice; yet I must confess that it is as much with an eye towards clearing up the subject as any thing else, that I am induced to notice it at all. I hope to do this as intelligibly as I can, and trust to succeed in making even Mr. Mayhew understand me; although my experience in teaching continues to afford evidence that there are *some* upon whom it is a hopeless task to bestow time and labour. I should, from the nature of *this* task, in the present instance, have felt particularly discouraged, had not I found in a certain "letter" much that is useful in assisting me to convey my ideas. Although the peculiarly correct and graphic expressions found therein have been put to the *press* once with very little purpose, I am unwilling

not to give them another trial, as I think their "popular meaning" cannot be mistaken when used for a *definite* "object." On this account, I feel disposed to make occasional use of some of them, not doubting but that their originator will find them more welcome than "obscure" words of mine, which might produce as little effect as those in the "letter" did when first applied; for there are instances in which people even *accustomed* to writing for the "press" deserve to be heard "merely for their much speaking." We live in an ERA which, in addition to affording ample evidence of this, also exemplifies the folly of these persons presuming to meddle with "a higher branch of science;" for, in the *discoveries* they publish to the world, there is so much "common place" matter, that those who *have* made any "advance in science," almost resolve "to dispense with books" entirely, unless, what rarely occurs, a CHIRON does *indeed* appear.

Apart from this digression, however, which in no way applies to Mr. Mayhew, who is rather an elderly member of the profession, I wish, in the next place, to inform him that I am far from being "hurt" on finding any one unaware of the extent of my knowledge. My language was that of surprise, when I found *him* dilating with such gravity on "structures" which, because *he* had recently become acquainted with them, he seemed to think had "been hitherto unobserved" by *others*. So far from being "hurt" because the extent of my knowledge had not reached *Mr. Mayhew*, I should, in all "kindly feeling," rather entertain pity for one who had at so late an hour become acquainted with "certain ligamentous bands" and their diseases; as it implied a previous lack of knowledge, to be deplored on his own behalf, and for the sake of those placed for instruction under him. I feel under no obligation to declare my "superiority" to *such an one*, in order to qualify myself for acting the honoured part of preceptor towards him. Being "cute and sensitive" regarding my "own reputation," I question whether I should gain any credit by a pupil who has lived so long in a "favoured sphere," and has made no farther advance than he appears to have done. I *am* afraid his "ears" would not be long enough profitably to "catch words," however plainly an inhabitant of "the north" might endeavour to embody in them principles, of which the author of the "letter" may yet be "unfortunately ignorant."

I also feel under as little obligation to publish "what is known in Edinburgh;" for the small amount of "learning" which we possess in veterinary matters, has perhaps come through the instrumentality of others. I leave those who are *discoverers*, those who find out "*something new*," to enjoy the full honour to which their laborious investigations entitle them, and will as gladly as the "medical press" award my humble meed of praise to any thing I

may think *really worthy* of "commendation," *as* "something new" or valuable, *should any thing* of such a nature appear in Mr. Mayhew's forthcoming work, for which I am anxiously waiting. I am not, however, willing to subscribe so much to things that have assumed the character of "common place," whereof the bulk of his former *discoveries* are composed. I fear, also, that were I to gratify my vanity by displaying to him and the world the extent of the learning I possess, I should "hurt" him, and "infringe upon the property in knowledge" which his *discoveries* may lead him to consider his own. I was on this account careful not to give the opinions contained in my paper as being *exclusively* mine.

In order to satisfy Mr. Mayhew that *I* should not have been justified in holding them up to the world as "something new," I beg leave to request his attention to a few authorities which occur to me, and who have long ago been acquainted with what he considers discoveries of his own.

The first I shall adduce is Professor Dick. In an article written by him in the "Quarterly Journal of Agriculture, May 1831," that gentleman expresses himself as follows:—"As the voluntary muscles, if kept continually in action, become fatigued, and as we know that the horse frequently stands even for years together, there must be some peculiar arrangement of parts by which he is enabled to support himself; and this we find depends on the combination, arrangement, and distribution of the bones, ligaments, and tendons."

"In the diagram of the fore leg, No. 1, it will be seen that a weight resting upon the top would produce a tendency, at least, for the limb to give way or bend at A (*shoulder joint*), B (*elbow-joint*), and C (*fetlock joint*). But the tendency to bend, which appears from this arrangement of the bones, is one of those means by which the whole is fixed. For when the foot is placed upon the ground it becomes the fixed point, and holds the rest above, the tendon of a muscle rising at *a* (*coracoid process of scapula*) and running to *b* (*head of radius*), others running from *c* (*internal condyle of humerus*) to *d* (*os trapezium*) and *e* (*os pedis*), and a ligament from *d* to C. Now, having fixed the toe, F, upon the ground by placing a weight upon the top of the limb, the pastern will run back and form a lever, FC. Under this passes a tendon (*the perforans*), which ascends and becomes connected by a ligament (*the metacarpal*) at the back of the leg at *g*, and then ascends and becomes fixed to the humerus above the joint at C; others pass down and become fixed at *d* (*trapezium*), and pass on below C (*fetlock*). Now, it will be seen that the pressure downwards of the fetlock at C will force down the tendon, and it will, therefore, pull back the knee. And as it extends upwards over the elbow

joint above *c*, and is fixed there, it will extend that joint; and having thus acted upon these joints, the shoulder blade is prevented from bending upon the humerus at A, because the tendon rising at *a* is fixed at its lower extremity at *b* by the extension of the elbow joint, and the foot is further extended by these parts resting upon the muscles arising at the posterior part of the inferior head of the humerus. These muscles send off a tendon or ligament at the outside of the knee, which, passing down, assists to keep the parts extended. The fasciæ and tendon covering and intermixing with the muscles which arise from the humerus, and extending down the leg, support the weight when the muscular fibres are at rest, and prevent them from being fatigued."

"By the arrangement, then, of these parts, we see that, as the different joints of the limbs are acted on and fixed in a state of rest by tendons and ligaments, and as both ligaments and tendons possess but a small share of sensibility, and are, consequently, but little susceptible of fatigue, we are enabled to explain how a horse is capable of supporting himself, both asleep and awake, with a less degree of exertion or fatigue to himself than is the case with most other animals."

The words in italics contained in parentheses I have taken the liberty of introducing, in order to explain as to what particular parts the characters used by the author refer; for, in addition to the "popular" language in which the paper is written, the author uses two diagrams to make himself, in his own words, "intelligible to those who do not possess an accurate knowledge of the mechanism of the fore leg of the horse."

Perhaps Mr. Mayhew may have heard of one "Jeremiah Bridges, anatomist, from Oxford," or, at all events, may have seen his plate of the muscles of the horse, for it is a common one. It was published in Long Acre, London, April 16th, 1772, and was inscribed to his Grace the Duke of Northumberland. In this plate Mr. Mayhew will find certain "ligamentous bands" very accurately delineated.

In a large and valuable folio work written by Lafosse, published in Paris 1772, and entitled "Cours d'Hippiatrique," equally correct representations of these "ligamentous bands," both in the fore and hind leg, are to be found in plates 21 and 22, to which plates there are tables of reference. The above work is particularly worthy the attention of even *discoverers;* there is *much in it* that, with such a garnishing as a Chiron could give, would really take as "*something new.*"

I did once think of giving more extended references, but I find it would inconveniently increase the length of my "letter." One more, and I have done for the present. In a French work written

by Saunier, and published in the year 1734, entitled "La parfaite Connoissance des Chevaux," the ligamentous bands are represented in plate 16, to which plate there is a reference table.

But it seems that, for my "*own sake*, it is necessary" I should substantiate the amount of my knowledge "by adding to the little" Mr. Mayhew has brought forward, instead of dwelling, as I do, on such "common-place matters as the ligamentum nuchæ, and the yellow elastic aponeurosis of the external oblique." I agree with him that "the subject is not yet exhausted," and hope he will one day agree with me that *his discoveries*, with respect to the situation and functions of certain "ligamentous bands" and so forth, come as much by way of "common-place" matters as any thing that could be said regarding the ligamentum nuchæ, or yellow elastic abdominal faschia. The "mysteries now known only to" myself I may, perhaps, at some future time, in all "kindly feeling," oblige him by enlarging on; but as there are apparently some "common-place" things on which he may yet with advantage bestow a little more labour, I at present scarcely conceive him prepared for a reception of higher "mysteries." It may, perhaps, not come amiss if I remind him, that should he, in his investigations, meet with "certain structures," it will be well to be quite satisfied that he *has some right* to consider them his own *discoveries*, instead of taking his own fancies and the statements of people "who call *themselves* scientific," or even the "commendation" of the "medical press," as evidence that *he has, indeed*, stumbled upon "something new." As regards myself, I feel disposed to continue the silence which Mr. Mayhew so much deprecates; for I dare not attach such importance to any thing I might *think* exclusively mine in the shape of *discovery*, as by its publication to incur the risk of falling into an error similar to that by which Mr. Mayhew finds himself "engulphed."

Yes, "there is a higher branch of science than that of anatomy;" and I am happy to find that I receive some credit for not being "ignorant of this." After giving a beautiful apostrophe in favour of *some* "higher branch of science than that of anatomy," but forgetting in his rapture to mention which "branch" he means, the author of the "letter" concludes a paragraph by jumping to the conclusion, that I am "easily satisfied concerning physiology." I am not anxious to know how *his* physiology would satisfy me; but I hope that when he brings forward "something new" in *this science*, it will stand the test as to originality better than do his *anatomical discoveries*. As yet, his only physiological knowledge, which I have seen displayed, calls for nothing more than the remark, that "*that was known before*."

Towards the close of his "letter," the author proceeds to adduce three sentences, purporting to be quotations from my paper, which he says "would warrant the notion being entertained" that I "might have remained content, and continued silent." I am sorry to say that I consider his "notion" ill-founded; for it will be seen that two of the three quotations upon which he grounds it are garbled, and, I fear, will assist neither in making out his case, nor in proving the correctness of his "notion." The quotation which *is* given correctly will be found to be used by me with special reference to only a *part, and not to the whole* of his paper, as his way of quoting it may seem to imply.

In conclusion, I assure the author of the "letter" that I am not "offended" because he has not supported his "opinions by more facts." Far from it. The "opinions" are already, and have been for long, "supported" by abundance of facts; and if Mr. Mayhew ever does me the honour of becoming my "*pupil*," I can shew him as many "facts" as he pleases in the shape of *cases*. If he has but seen *one case* in point, and has built his statements *on it*, I am, as before stated, much more disposed to *pity*, than to be "hurt" or "offended." I have not any right to blame him for his poverty in this respect, or for having had the mere opportunity of seeing only *one* instead of a "multiplicity of cases:" if I then am rich, it is as cruel for me to "sneer" at the poor, as it is "unkind for the learned to sneer at the ignorant." I entreat Mr. Mayhew to believe that the "kindly feeling" which I entertain on his behalf "precludes the possibility" of my being either "hurt" or "offended" with *him*, whatever may be his "hasty words," or whatever may be our differences of opinion as to his right of claim for originality in anatomical discovery. I cannot conceive him so ungrateful as not to reciprocate this "feeling;" and I give the assurance that the most welcome return he could make to him who entertains it, would consist in "answering his assertions," and in "replying fully to his statements."

I am, Gentlemen,

Your's sincerely,

JOHN BARLOW, V.S.

Edinburgh Veterinary College.

STATEMENT OF THE CASES OF DISEASE AMONG DOMESTICATED ANIMALS OCCURRING AT THE EDINBURGH VETERINARY COLLEGE,

From the 1st to the 31st of May, inclusive.

By Professor Dick.

Disease.	Number of Cases.			Deaths.		
	Horses.	Neat Cattle.	Dogs.	Horses.	Neat Cattle.	Dogs.
Abscess, in various parts ...	2	...	1	...	...	...
Anasarca	1	...	...	...	...	...
Bursal Diseases	2	...	...	...	..	...
Caries	1	...	...	...	...	...
Castrations	2	...	...	...	...	...
Catarrh and Influenza.....	22	...	...	...	...	...
Chorea	...	1	...	...	...	...
Colic.....	15	...	...	...	...	...
Constitutional Debility	3	...	...	...	...	...
Curb, with Lameness	5	...	...	...	..	...
Diabetes.....	4	...	...	..	...	...
Distemper	...	...	2	...	...	...
Diarrhea	2	...	...	...	...	...
Enteritis	1	1	1	1	...	...
Epistaxis	1	...	...	...	...	...
Epizootic (vesicular)	...	7	...	...	...	...
Erysipelas.....	1	...	...	...	...	...
Eyes, Diseases and Injuries of	3	...	2	...	...	...
Examinations as to Soundness.....	33	...	...	...	...	...
Farcy	2	...	...	1	...	...
Farcy with Glanders.....	2	...	...	2	...	..
Feet, Wounds and Bruises of,	18	...	...	...	...	...
Corns in.....	5	...	...	...	...	...
False Quarter and Sandcrack in	1	...	...	...	...	...
Foul in	...	2	...	..	...	...
Laminitis	5	...	...	...	...	...
Navicular Disease in.....	8	...	...	...	...	...
Quittor in	2	...	...	...	...	...
Seedy Toe in.....	1	...	...	...	...	...
Ringbone in	2	...	...	...	...	...
Thrush in	3	...	...	...	...	...
Fistulæ and Ulcers	4	...	...	...	...	...
Fractures of Bones	1	...	2	1	...	...
Glanders	2	...	...	2	..	...
Indigestion	3	2	...	...	...	...
Joints Opened	2	...	...	1	...	...
Jaundice	...	1	1	...	...	...
Lameness in Fetlock .....,	5	...	...	...	...	...
Ditto in Knee.....	1	...	...	...	...	...
Ditto in Hip	4	...	...	...	...	...
Ditto in Pastern	1	...	...	...	...	...
	170	14	9	8	0	0

Disease.	Number of Cases. Horses.	Neat Cattle.	Dogs.	Deaths. Horses.	Neat Cattle.	Dogs.
Disease brought forward	170	14	9	8	0	0
Lameness in Shoulder	3	...	...	...	...	...
Ditto in Stifle	1	...	...	...	...	...
Mammitis	...	1	1	...	...	...
Palsy	1	1	...	...	...	...
Pleurisy, Pneumonia, and Bronchitis	19	27	1	2	22	...
Puerperal Fever	...	1	...	...	1	...
Strangles	3	..	...	...	...	...
Spavin, with Lameness	3	...	...	...	...	...
Splint, with ditto	1	...	...	...	...	...
Skin, Diseases of	12	...	2	...	...	...
Spine, Injury of	1	...	...	1	...	...
Sprains	12	...	...	...	...	...
Tetanus	1	...	...	1	...	...
Teeth, Diseases of	3	...	...	...	...	...
Tumours	1	...	...	...	...	...
Tympanitis	...	1	...	...	...	...
Vein, Rupture of	...	1	...	...	1	...
Weed	1	...	...	...	...	...
Worms	2	...	...	...	...	...
Wounds in various parts except Feet	25	...	...	1	...	...
	259	46	13	13	24	0

General Abstract.

Cases among Horses	259	Deaths among Horses	13
„ Neat Cattle	46	„ Neat Cattle	24
„ Dogs	13	„ Dogs	0
„ Total number	318	„ Deaths	37

The case of chorea occurred in a fine cross-bred cow, the property of a dairy-keeper. About a fortnight previously to the 5th of May, according to the owner's account, she was affected with what he considered a fit of madness. She tossed her head about, bellowed, and appeared in an extremely excitable state; but so temporary was this attack, that she shortly became apparently well. About a week after her recovery, she was again taken ill, but not in a similar manner; and as the disease did not, as in the former case, disappear, the owner then applied here for assistance. On visiting her, the symptoms of chorea were well marked. At tolerably regular intervals there were involuntary twitchings seen in various parts of the body, but the head, neck, and panniculus carnosus of the left side seemed more especially involved than other parts. When any one approached her, although she did not seem at all alarmed, yet the twitchings became increased in violence.

She had considerably fallen off her milk, fed but sparingly, and seldom ruminated. The owner seemed to think the case a mysterious one, and, although doubtful as to its results, he was anxious that attempts should be made for her restoration. Alterative mercurial medicine with vegetable tonics were in the first place given; and after using these for some days, there seemed to be a mitigation of the symptoms. The mercury was after this discontinued, and mineral tonics alone employed, under which she gradually improved. During the time she was taking the tonic medicine, she, along with other cows in the same building, became affected with the vesicular epizootic. The epizootic in her case ran its course mildly, and before the time she perfectly recovered from it the original disease had entirely disappeared. The cow has since continued quite well.

It will be seen that a great majority of the cases of pleuropneumonia among cows is reported as having terminated fatally. It is right to mention, however, that we were requested to see these cases, chiefly in order to satisfy their owners whether or not it was the present destructive epizootic under which they were suffering. In very many instances the patients were in excellent condition when seized with disease, and taking into account the uncertainty and tediousness of medical treatment, with the deterioration in value of the animals even should they recover, it was generally deemed advisable to recommend that they should be disposed of. In other cases, however, where the animals are in low condition, medical means are generally resorted to, so that the students, who are attending at the present time, have abundance of opportunities afforded them for seeing the disease in all its forms. Full liberty is allowed by the owners of cattle for the students to pay regular visits to their establishments: this affords valuable opportunities of becoming well acquainted with the symptoms and circumstances under which the disease makes its appearance. They are also required to treat cases themselves, and to give reports as to their progress.

One of the cases of palsy occurred in a pony, and may deserve a few remarks. The animal was bought from a dealer on Monday, the 18th May, apparently in good health: it continued so until the following Thursday, when the owner, riding him to Musselburgh races, thought he became dull and languid. This was not, however, much noticed, and on the following morning the pony was again taken out, and ridden to and from Leith, when the dulness increased so much that advice was requested concerning it. There was at this time, Friday, May 22, accelerated breathing—the nose was extended—the animal did not lie down—the ears and extremities were cold. Pulse full and 60. The fore legs were placed forwards, as in founder, and the hind ones were stretched back-

wards. When made to move, the animal walked stiffly, but without apparent pain—the appetite was slightly impaired, but there was a degree of constipation. Twelve pounds of blood were abstracted, and a dose of laxative medicine was given. Tepid water and mashes were ordered. On the following day the breathing was easier, and the pulse was softer; the animal did not eat much, as the physic had commenced to operate. On Sunday the stiff gait had assumed another character, and there were evident symptoms of paralysis in the hind limbs. The animal still seemed tolerably lively, and now fed well. On Monday the paralytic symptoms had farther increased—the animal could not move the hind legs, although he could turn in any direction upon the fore extremities. Sheep-skins and hot cloths were applied to the spine. For some days the symptoms continued much the same. The animal, by means of his fore parts, moved round upon his hind ones. He never lay down, but fed well, and seemed lively. The power of motion seems now to have returned in a considerable degree, although not to that extent which promises speedy recovery.

The case of palsy in a cow was one of a more tractable character. The beast in which it occurred belonged to a gentleman who only keeps two others, and which, together with the one alluded to, are valuable animals. On the man going into the cow-house on the morning of Thursday, 28th May, she was found to be off her feed, and would not rise without repeated attempts being used to make her do so. When she gained her feet, the man said he thought her lame, and she soon lay down again. Advice was immediately applied for; she was found down; breathing slightly quickened; pulse 65, but not strong; there was a quantity of saliva flowing from the mouth. On inquiry, she did not appear to have been constipated. From the lameness, and from the salivary discharge which existed, an examination was first made in order to ascertain whether she was affected with the vesicular epizootic: no signs of that disease, however, could be found. The cow was then made to rise, which she did with great difficulty; and on making her walk, she staggered on the hind limbs, as if in constant danger of falling. The fore-legs appeared quite unimpaired in the exercise of their muscular power. An aromatic purgative was administered, and stimulating applications were used to the region of the spine. On the following day, the purgative not having acted freely, another dose was given, along with an increased quantity of aromatic medicine. When the physic commenced to operate freely, there was a speedy change in the symptoms for the better, and in a few days the cow was quite restored.

One of the cases of open joint occurred in a bay horse, which

fell while working in a cab, and extensively wounded both knees, opening the articulation in the near one. The leg was placed in a cradle, so as to render the horse unable to flex it; the wound was lightly covered with tow saturated with a simple lotion, and in a comparatively short time the case quite recovered.

The other case of open joint, which terminated fatally, occurred in a chestnut horse, belonging to a person who was working him on a line of railway which is now making near town. While so employed, the horse got the foot and pastern of the near fore-leg crushed between one of the carriage-wheels and the rail, the effect of which was, fracture of the os coronæ and the opening of the articulation at each of its extremities. The horse was brought here and kept for some time under treatment; but the degree of sympathetic fever which came on was so great, that it was found necessary to destroy him.

The case of fracture which terminated fatally occurred in a cab mare. She was brought here late on the evening of May 16th, presenting a large wound a little above the point of the off shoulder, which the man in charge said had been caused by the shaft of a chaise. The mare was scarcely able to walk, and had to be supported here on planks, or probably she could not have reached at all. On examining the wound, it was found that the neck of the scapula was fractured: nothing was done for it, and the mare was destroyed.

Among the cases of wounds one may be noticed, as it shews the consequences of thoughtless and ignorant treatment. A mare that had been hired by a traveller for a journey, after being away some days, and when about sixty miles from town, fell, and severely cut and bruised her knees. She was left near where the accident took place, until sufficiently recovered to travel into town. Immediately on her return a blister was applied to the knees, and her head tied up to prevent her gnawing it with her teeth. She was kept standing in this way between two and three weeks, when, becoming exhausted from standing so long, she broke the halter and fell down. As she was thought to have injured her back, application was made here. As her pulse was feeble, and her leg somewhat swollen, especially the one on which she had chiefly supported herself, it was evident that her inability to rise was owing to debility. She was, therefore, placed in as comfortable a position as possible, and allowed to lie quiet for several hours, after which she was turned over to the contrary side. The turning was repeated at intervals until the next afternoon: she was then raised and supported by slings, in which she remained for some days, when, having considerably improved, she was turned to grass quite convalescent.

WILLIAM DICK.

THE COUNCIL OF THE ROYAL COLLEGE OF VETERINARY SURGEONS.

Sitting of June 3, 1846.

Present the PRESIDENT, the SECRETARY, Messrs. BRABY, CHERRY, W. ARTHUR CHERRY, ERNES, HENDERSON, MAYHEW, and JAMES TURNER.

MR. BRABY's motion on finance produced a long discussion upon the position in which the Veterinary Committee now stood. It appeared that the Veterinary Committee which had been appointed to obtain the Charter of Incorporation, had, after its attainment, handed it over to the thereby newly created corporate body. At the same time, a surplus of the funds which the Veterinary Committee had raised was placed in Messrs. Drummonds, the bankers, hands, in the name of the "Royal College of Veterinary Surgeons," and consequently could only be withdrawn by the authority of that body. But at the time of this handing over the Charter and the surplus funds, the Veterinary Committee had not entered into any arrangement with the new body by which the Committee were relieved of the liabilities which the members of that Committee, individually and collectively, had incurred, by the raising of a loan to carry out the obtainment of the Charter. The Veterinary Committee had called two meetings of its members since the transfer; at the last of which it was strongly urged by some of its members, that, as a committee, it had ceased to exist so soon as the object for which they had been appointed was obtained. In consequence, the meeting was dissolved without proceeding to any further business, and the present motion was brought before the Council to set the matter at rest.

Mr. Ernes strongly urged that the Council were bound to take upon itself the liabilities of the Veterinary Committee, as he contended that the Committee had, as a body, *de facto* ceased to exist so soon as the Charter for which they had laboured was accepted by the profession, and that the question could not under any circumstances be entertained. Mr. Cherry took similar views.

Mr. Mayhew contended that the question was one of paramount importance, and required great care in its settlement, as the Council were not met there to decide any question as mere individuals. As a representative body, they had to render an account of their acts; therefore they could only do that which was strictly legal. That generosity was totally out of the question in the management of the affairs of a public body; that justice, and justice only, must

guide them. At the same time, he was perfectly willing to share any responsibility that might be requisite, provided that it was right, proper, and *lawful* so to do. He therefore proposed that a legal opinion on this point be first obtained, and that a Committee be appointed to go into the accounts and draw up a statement for the purpose of obtaining such legal opinion; the report to be laid before and receive the sanction of the Council.

To this course there could be no objection, and it was adopted with but one dissentient voice. A Committee to prepare the report was appointed, consisting of Messrs. Braby, Ernes, Gabriel, Henderson, F. King, and Mayhew.

There was but one opinion as to the necessity of relieving the Veterinary Committee of its responsibilities, the only question was, as to the most proper mode of so doing, as the time which had elapsed, and the complexity of the accounts, very much involved the simplicity of the affair.

The sum of £50 was placed at the disposal of Mr. Gabriel, the able and assiduous Secretary, as a slight acknowledgment by the Council of their respect for his laborious services; at the same time their best thanks were warmly tendered to him.

Mr. Mayhew's motion, that "the proceedings of the Council be considered open and free for publication," was carried unanimously.

On the motion of Mr. Ernes it was decided that the President should be empowered to sign diplomas in Council before the names of the parties to whom the instrument might be granted was inserted. This order was in consequence of the delay which arose from being obliged to call a Special Council, that the diplomas might be signed, as heretofore, after the names of the recipients had been filled in. And it was felt that, though the present proceeding was a departure from former practices, it was depriving the new member of half the pleasure, by keeping back for a time the document which made him a member of the body corporate.

In the absence of Mr. T. W. Mayer, Mr. Mayhew was entrusted to bring forward the motions of which notice had been given. The object of Mr. Mayer being to endeavour to do away with the evident misapprehension which exists amongst the Governors of the Royal Veterinary College, as to the intentions of the Royal College of Veterinary Surgeons; and that it would be desirable that a deputation should wait on the Governors of that institution to explain the objects and views of the Royal College of Veterinary Surgeons. It was carried unanimously; and the President was directed to address his Royal Highness the Duke of Cambridge, the President of the Board of Governors of the Royal Veterinary College, soliciting the interview; and in case it should be granted

at a time too short to allow of a meeting of the Council to be called, a deputation was at once named.

A number of letters were read from parties connected with the Edinburgh College respecting the examinations there, and the delay of the diplomas. Many of these were of a most improper character, and deserved severe reprehension.

The meeting then broke up.

Sitting of June 17, 1846.

Present the PRESIDENT, the SECRETARY, Messrs. BRABY, CHERRY, W. ARTHUR CHERRY, ERNES, W. FIELD, HENDERSON, W. PERCIVALL, and JAMES TURNER.

This was a special meeting, called to receive the report of the Finance Committee appointed at the last sitting.

Mr. Braby read the Report, which entered into a clear statement of the circumstances under which the Veterinary Committee was appointed, and also a general statement of the accounts, so that a case might be prepared therefrom on which a legal opinion could be taken.

Mr. Ernes again strongly urged the views he had stated at the last sitting, and endeavoured to make them the stronger, so as to carry the conviction of their correctness.

Mr. James Turner proposed that the Council should give the Veterinary Committee a receipt in full, in other words, a similar proposal to that of Mr. Ernes.

Mr. Cherry thought that the Committee had more than given money to the Council; they had also given the Charter as the result of their labour. He (Mr. C.) must repeat, that there was no "case" for counsel, and in seeking a legal opinion new questions would arise, which had better not be raised.

Mr. Percivall wished it to be clearly understood upon what grounds the early meetings were to be considered as general meetings of the profession, and it was shewn that a general meeting was called together by numerous advertisements in the public papers. A large number attended, and the Veterinary Committee was appointed. That subsequently a requisition praying for a Charter of Incorporation was signed by about 350 members of the profession.

Mr. Mayhew repeated his opinions as to the importance of being backed in the settlement of this question by good and high

authority. They had no right to take upon themselves more than what the law allowed them to do. In seeking such legal opinion, the object was, not to set aside a debt which was plainly due, but to know how far the law would bear them out in acting upon their own inclinations.

Mr. Field stated, that when the Committee undertook their responsibilities it was a voluntary risk, but expecting that the money advanced would be returned by the profession. Before the Charter was obtained, Mr. Thomas Turner called on him (Mr. F.) and said that he (Mr. T.) would advance all the money wanted out of his own pocket. He (Mr. F.) advised him not to do so, but to get several others to join. The advice was acted on: the responsibility was shared voluntarily by these parties, and the obtaining the Charter was a gratuitous act. By having chosen to procure a Charter, they had also chosen to incur pecuniary liability. He (Mr. F.) as one of the lenders might lose his money; he might not have any claim on any party; but he would rather do so than that the Council should do any thing but what was legal, safe, and just. Mr. Field said that he was disposed to believe that Sir James Graham would, from several causes, be inclined to listen to the wishes of the veterinary profession, and grant any reasonable immunities which might be asked for. The Minister of the Home Department had become aware of the importance of restraining unqualified practitioners.

Mr. W. Arthur Cherry, *Mr. Gabriel*, and *Mr. Henderson* took similar views as to the propriety of settling the question on honourable and equitable grounds, and that it would be more satisfactory to the body to take a legal opinion.

Mr. Braby considered that counsel's opinion would be against the Committee; for as they allowed their money to be paid into a banker's in the name of the Royal College of Veterinary Surgeons, and alone answerable to their drafts, it might be considered as a free gift from the Committee to the body corporate.

Mr. W. Arthur Cherry moved, and *Mr. Percivall* seconded, "That the Report be received, with a view to its being laid before counsel."

Mr. Cherry proposed and *Mr. Ernes* seconded an amendment, "That the Royal College of Veterinary Surgeons adopt the responsibilities of the Committee."

For the amendment there appeared only the mover and seconder. The original motion was, therefore, carried by a large majority; and it was moved and carried that the report be forwarded to Mr. Walter, in order that the opinion sought might be obtained.

On the motion of *Mr. W. Arthur Cherry*, seconded by *Mr. Field*, it was proposed "That a public dinner should be arranged,

to which not only the veterinary profession, but all gentlemen fond of horses and well-wishers of the art, should be invited, and, if possible, some influential nobleman prevailed on to preside."

The motion being considered important, it was carried unanimously, and Messrs. Thomas Turner, Field, Percivall, Henderson, and Goodwin were appointed a committee to carry out the object.

It was moved by *Mr. Percivall*, and seconded by *Mr. J. Turner*, "That a circular be sent to each member of the profession, requesting a yearly subscription of not less than 10s. in support of the Royal College of Veterinary Surgeons."

This was carried, and the Secretary desired to carry it into effect immediately.

The President laid on the table a copy of the letter he had addressed to H.R.H. the President of the Royal Veterinary College, the letter stating that the Council had been misrepresented, and respectfully requesting that an interview would be granted to remove the impression.

The letter was sent with a note to the Secretary to the Governors (Professor Sewell), requesting that the letter might be forwarded to his Royal Highness.

Mr. Sewell replied by note, that he would lay the letter directed to H.R.H. the *President* before a *Committee of Governors* for their instruction.

A very animated discussion ensued in consequence of such proceeding on the part of Professor Sewell. The letter transmitted to Mr. Sewell being addressed to his Royal Highness the Duke of Cambridge as the President, and not to a Committee of Governors. The reply was deemed disrespectful to the Council, not only by its evasiveness, but also in the language in which it was couched. Mr. Sewell was written to in his capacity of *Secretary* to the Governors of the Royal Veterinary College; but he replied as *Professor* Sewell; and, though thus be-titling himself, he addressed the President of the Royal College of Veterinary Surgeons as "MR. Turner."

With the Governors of the Royal Veterinary College it certainly would be most impolitic to disagree, the very object sought being to place parties on a more amicable footing. Many suggestions were made, all tending to the same point. It was finally arranged that the President should apply to Mr. Sewell for information as to whether the letter had as yet been forwarded to H.R.H. the President of the Royal Veterinary College, in order that proper steps might be taken to ensure the object which they were seeking.

Mr. W. Arthur Cherry gave notice of three motions, after which the meeting broke up.

Extracts from Domestic & Foreign Journals, Veterinary, Medical, Agricultural, Sporting, &c.

An Essay on Chronic Podotrocholitis.

By Dr. Brauell, *Professor at the University of Kasan.*

(Analysed and translated by M. S. Verheyen.)

Chronic Podotrocholitis, otherwise known as *the navicular disease*, has not escaped the attention of veterinarians. Many make mention of it in their writings; but all their observations, not even excepting those of the English, are too incomplete to enable one to form a just idea of this affection. This author, who was formerly the clinical professor at the university of Wilna, struck by the frequency and malignity of chronic podotrocholitis, and the number of horses ruined by it, devoted himself particularly to the study of this disease of the feet in horses. During the course of a six years' practice, he collected together numerous fresh facts, furnished him by his anatomical and physiological researches, as well as by a great number of vivisections. His work raised questions he wished to elucidate; but being compelled by his new appointment on the banks of the Volga to renounce veterinary practice, he expressed a desire that others would enter upon fresh investigations, and supply that which he left wanting.

The author commences by passing in review the writings of the ancients, wherein he does not meet with a single passage leading us to infer they had any notion of the disease. It is Lafosse in whose works the first allusions to it are found.

Lafosse, jun., was neither ignorant of the seat nor of some of the peculiarities of chronic podotrocholitis; but, confounding it with other diseases of the feet, failed to give any description of it as a special disease. He must not, however, be blamed on that account. The gigantic works undertaken by this remarkable man rendered it impossible for him to bring to maturity all the germs he discovered. His successors are much more inexcusable for not endeavouring to work out the evident hints he had given; and the reproach is doubly merited by his compatriots, who, after a long series of years, have to receive that light from foreigners, the first spark of which emanated from one of their own countrymen.

The English, incited by the great value of their horses, and the lucrative use made of them, studied the diseases of the foot with an ardour and success which no other nation have ever equalled.

To England is due the merit of having first demonstrated the existence of chronic podotrocholitis as a special disease, and of having established the basis of the pathology, as well as of the therapeutics, of this affection. Turner laid the first foundation; and, although the honour of the discovery of chronic podotrocholitis does not, as he affirms, belong to him, it must be confessed he possesses a certain right of priority, being the first to appreciate its importance. Turner* states that his discovery dates from 1816; that he communicated it to Coleman and Sewell; but that his compatriot, Coleman, had not been silent respecting this disease, although he confessed that he had never seen a case of it, and entertained doubts of its existence†. Let us, therefore, admit that Turner opened a new road to pathological studies of the feet: in it he was followed by Brigas, Percivall, Moorcroft, Goodwin, and Sewell, who laboured with great zeal in the cultivation of this new field. Sewell, especially, deserves praise in a therapeutic point of view, for the frequent applications of the operation of neurotomy as a means of curing chronic podotrocholitis, and for the improvements which this operation has received at his hands.

The discoveries made in England soon became known on the continent. Girard‡ incited the French veterinary surgeons to research by publishing an analysis of Percivall's lectures. Berger§ having learned to recognise chronic podotrocholitis in Great Britain, communicated his acquired knowledge to his compatriots. At first the French veterinarians took less interest in the affection than in neurotomy: they rejoiced too much over the surgical acquisition by the means of which it was in future to be possible promptly to remedy every obscure and obstinate disease which had its seat in the foot. Running away with the application of a new remedy—contenting themselves with the removal of a symptom of the lameness—they forgot the study of the disease, and not only made no progress in it, but altogether neglected it.

Nor did the scientific publications of Germany do more towards advancing the pathology of chronic podotrocholitis. While the French took but a very restricted view of it, the writings of German authors were distinguished by an apathy by no means in accordance with the observing spirit, the enthusiasm of the German nation for all foreign discoveries, and the ardour with which they usually set to work to improve and perfect them.

After these historical remarks, the author passes in review the

* The Veterinarian for 1829, p. 53.

† Observations on the Structure, Economy, and Diseases of the Foot of the Horse, 1802; vol. ii., p. 47.

‡ Recueil de Médecine Vétérinaire, 1824, p. 441.

§ Journal Pratique, 1828.

anatomical structure and functions of the parts which constitute the seat of chronic podotrocholitis. These parts are the navicular bone, the flexor perforans tendon, the bursal mucous membrane, the ligaments of the navicular bone, the heels, and the frog.

To the pulley-like adjustment between the posterior surface of the navicular bone and that portion of the flexor tendon which glides over it, he gives the name of trochlea of the foot; the trochlea extending forward to the place of insertion of the tendon into the coffin bone.

PATHOLOGY OF CHRONIC PODOTROCHOLITIS.

General Characters.—Chronic podotrocholitis, *maladie naviculaire* of the French, *navicular disease* of the English, *chronische Hufgelenklæhme* of the Germans, is a very serious affection, exclusively peculiar to the horse, and frequently attacking that animal. Blood horses, whose hoofs are upright and contracted, are particularly subject to it: it developes itself chiefly in the fore feet of saddle horses, and appears to have a peculiar predilection for the right foot.

Opinions vary with respect to the seat of the disease. Some authors place it on the posterior surface of the navicular bone, among these is Hausemann, who says* "An inflammation frequently arises in the articulation of the foot, which creates lameness; it is of the same nature as that which engenders ringbone; it arises on the posterior surface of the navicular bone." Others, on the contrary, believe that the affection first of all invades the anterior surface of the tendon. According to Turner†, it commences in the bursa mucosa, and in that portion of it which lies in contact with the anterior surface of the tendon. My own observations have proved to me that neither the navicular nor the bursa is the invariable seat of chronic podotrocholitis: it is as likely to arise in one tissue as in the other. I have found the bursal membrane inflamed while the navicular, both in the recent state and after maceration, betrayed no morbid alteration. I have afterwards seen cases in which the disease had evidently commenced in the navicular bone. When this latter is primitively attacked, the podotrocholitis develops itself slowly and insensibly; but when the former is affected first, the evolution of the disease progresses with much greater rapidity. It is, nevertheless, worthy of remark, that where the navicular is the one attacked, the inflammation is not long in reaching the bursal membrane, either by sympathy or

* Ueber Entzündung, *Hanover*, 1837, p. 8.

† The Veterinarian, 1829, p. 59: 1830, p. 36.

by contiguity of substance, and this latter is found to be altered, although the disease has its original seat in the bone. The disease never seems to arise in the trochlean cartilage: it is from sympathy only that this undergoes morbid alterations. It is the same with the tendon: this shews no disease until the portion of the bursal membrane which it covers becomes altered.

The inflammation is confined for a considerable period to the trochlea, from which it extends, first, to the nervous and vascular ramifications situated beneath the navicular bone; afterwards, when the inflammatory action has attained a high degree of chronicity, it attacks the coffin bone; but my own observations, agreeing with those of Turner, lead me to conclude that the coronet bone ever remains intact.

Podotrocholitis belongs, from its nature, to chronic inflammations. Its progress is always extremely slow: it may last for weeks and months, and instances are by no means rare of its being prolonged for years. The termination is effected by resolution, or, what is unhappily more frequent, by the complete destruction of the trochlea of the foot.

The seat and nature of the affection being thus, in a general manner, fixed, it is evident that the term lameness of the foot joint (*Hufgelenklæmhe*) is most equivocal, and ought to be rejected; besides, this paraphrase does not point out the seat of the disease; it places it in a portion of the articulation of the foot where it does not primitively exist; lastly, it does not indicate the nature of it, but simply expresses one symptom. The same objections apply to the term podarthrocace used by Stricker*. I propose, therefore, to call this affection chronic podotrocholitis, from πους (gen. ποδος) foot, τροχιλια, *trochlea*, or pulley.

Special Characters.—At the commencement of chronic podotrocholitis there is usually either inflammation of the bursal membrane only, or of that and the navicular. The superior portion of the bursa, which unites with the superior edge of the navicular bone and is contiguous to the tendon, presents on its internal surface a blush of redness, sometimes accompanied with a slight tumefaction; the portion which covers the trochlean cartilage, as well as the anterior surface of the tendon, has lost its pearly whiteness, and taken on a saffron-like hue, and this portion of the bursa is often thickened. The fluid which it contains is of a reddish colour, and much resembles the serum of the blood; the coverings of those vessels which pass under the navicular are frequently injected. I have often seen the flexor tendon, close by its insertion into the coffin bone, present the ap-

* Magasin für die Gesammte Thierheilkunde, herausgegeben, von Dr. Gurlt und Dr. Hertwig. Vol. ii, part 1st.

pearance of having been submitted to lateral compression; examined on its anterior surface, it looked as if wrinkled. I attribute this alteration to a degree of compression exercised by the heels of the coffin bone, the result of their near approach to each other in hoof-bound feet. When the navicular bone is inflamed, it is red and strongly injected; the vessels which traverse it, and the cells and canals with which it is perforated, are dilated. When macerated, it is found to have decreased in weight, its texture to have become more porous, and sometimes it appears a little puffed up, (*osteoporose.*)

If the disease has made some progress on that side of the bursal mucous membrane next to the tendon, or that which faces the navicular bone, or both, have undergone partial destruction, and the tendinous fibres are denuded, a reabsorption of a portion of the trochlean cartilage is also not unfrequently met with, particularly near the crest of the navicular; again, the posterior surface of this bone has often become partially absorbed on the two sides bordering on the crest. Its projection, becoming enlarged, imprints a longitudinal groove of greater or less depth in the flexor tendon, on which it rests. This process of destruction of the trochlean cartilage is caused, according to Herbert Mayo*, by the absorbing action of the cartilage itself; but this pathological phenomena, as well as that which takes place on the surface of the navicular, seems to admit of being classed under that species of absorption called by Thomson *progressive*, and having for its cause a purely mechanical action. The diminution of the frontal bone, the result of compression of cerebral tumour, and the depression upon the nose by the nose band, present us with analogous examples of bony reabsorptions. If the comparison is not exact, at least there is no striking difference; and what speaks strongly in its favour is, that the disappearance of the bony matter corresponds exactly to the parts where the navicular is compressed by the branches of the frog.

Round about the groove formed in the flexor tendon the superficial fibres of this latter separate themselves from those immediately beneath, sometimes only on one, at others on both sides. At first they commence by merely disuniting among themselves; afterwards they break at one extremity or the other, roll up on themselves, and form little elevations on the level of the tendon. The loss of substance which thus results confounding itself with the longitudinal groove already formed, still further increases its size.

At this period of chronic podotrocholitis the flexor tendon fre-

* Gundniss der speciellen Pathologie, mit besonderer Rücksicht auf die pathologische anatomie. Translated from the English, 1838.

quently contracts adhesions with the navicular, but not throughout the whole extent of the points in contact, but at those parts where the bursal membrane is destroyed, or at the portions of tendon denuded by the disunion and rupture of the superficial fibres. These latter only become partially detached at first; but gradually this pathological action progresses, until at last the whole of the anterior surface of the tendon becomes covered with elevations and depressions, and thoroughly uneven. Arrived at this degree of disorganization, it very often presents red striæ, similar in appearance to muscular fibres; these striæ appear to be produced by exudation: at other places greenish spots may be perceived. The destruction of the tendon progresses with the duration of the lesion; it takes place from before backwards, and in spots, until at last the tendon becomes so thin as to be transparent: sometimes nothing remains of it but some thin and softened bundles of fibres at a distance from each other. The rupture of these is the natural consequence of this destructive process; but before that takes place the tendon has attached itself to a fresh place, to the superior and posterior edge of the navicular bone; a solid fibrous layer serves to unite these two parts, which is furnished by the right superior suspensory ligament of the navicular, that ligament being for the purpose very much thickened and abnormally developed.

When the disease has been going on for some considerable time the fluid contained in the bursa almost entirely disappears, or, if it remains, it is transformed into a thick, yellowish, white flaky liquid, and frequently holds the tendinous fibres in solution, which can easily be distinguished.

The consequences of inflammation of the navicular are, in all cases, a diminution in the size of the bone, sometimes accompanied, towards the latter stages, with abnormal productions which attack other parts. Caries is the primary cause of decrease in the size of the bone. This caries is either deep or superficial, invading one or more points, as the crest, or the lateral depressions of the navicular. Before the caries makes its appearance, little elevations of about the size of a grain of millet seed appear upon the posterior surface: when the bone has been macerated they present themselves under the form of little exostoses. I cannot decide whether or not these elevations should be classed under the head of the tubercles designated by Nelaton* *enkistés*: they attracted my attention too late, and I did not submit them to a microscopic examination. One thing I can speak positively with regard to is, that these exostoses, which have also been observed by Turner, are the precursors of the caries which attacks the elevated parts.

* Recherches sur l'affection tuberculeuse des os. 1837.

Once established, they change into holes, and the whole bony surface appears as if it had been gnawed by worms (worm eaten, *caries verminosa* of the English). The exostoses also do mischief, and here and there may be perceived a slight depression or indenture in the cartilage of the trochlea. On the bone being macerated, it is found to be worn on the parts corresponding with these depressions: this latter presents irregular tooth-like edges, while the posterior surface of the navicular is uneven and rough throughout its whole extent, or on some points only. The trochlean cartilage covering the careous parts disappears, not as a consequence of progressive absorption, but because it undergoes the same fate as the bone. It softens, becomes uneven, and insensibly the surface of the navicular is rendered bare; when entirely deprived of the cartilage which encrusted it, it becomes of a deep red colour.

The caries irradiates from the centre towards the circumference; it causes loss of substance, as well as holes of greater or less depth and extent, and of various forms; these are filled with a red fungous mass *(caries fungosa)*. It also happens that the caries invades a greater or less portion of the periphery of the bone, and that it progresses towards the centre. It does not destroy the whole of the bony matter which it encounters, but extends itself circularly round a portion of the compact layer of the bone. This portion, detached throughout its whole circumference, continues to adhere by its basis to the body of the navicular; the loss of substance is replaced by the fungous matter, so that an isolated piece of bone is seen surrounded on all sides with fungous tissue, giving it the aspect of an island or cone. The destruction of this piece of bone is gradually effected; it yields at length to the invading progress of the fungus, which eventually replaces it; but, in general, before the completion of the morbid action, the bone contracts an adhesion with the tendon. If, when in this state, the foot is dissected and the tendon lowered, after having been separated from its other adherences, the bony plate will remain suspended to it, and continue to maintain itself firmly there. The union of the sesamoid, when bare and altered by caries, with the tendon, is an almost invariable phenomenon; the tendinous fibres first of all contract adherences with the fungous tissue, on which they exercise a constant compression. This morbid tissue finds itself, in a manner, driven back again into the holes from whence it springs, and the bone, the fungus, and the tendon become at last thoroughly united. This situation of things has led many observers into error, by causing them to believe in the formation of fresh tendinous fibres.

The holes of which we have already made mention enlarge gradually as the caries increases in extent and depth; sometimes

they attain the size of a hazel-nut. In this porous state the bone is exceedingly liable to fracture, and this accident is so very likely to happen from the caries being accompanied by friability *(ostéopsathyrosis)*.

While the navicular undergoes a loss of substance on the one side, it is very seldom that any newly-formed bony productions are perceived on the other. Osteophytes are developed on the posterior, superior, and inferior edge of the navicular bone; and chiefly there appear spinous styloide, and diffuse osteophytes. The two first varieties arise from the posterior and inferior edge prolonging themselves towards the coffin-bone, meeting with similar productions, which arise from this latter bone, and their union determines an adhesion between the coffin and navicular bones; or else, these exostoses remaining free, present themselves under the form of sharp teeth.

If the podotrocholitis has attained any great degree of chronicity, swelling, or puffing up of the coffin-bone will be found, as well as porosity of its projections. The synovial capsule at length participates in the morbid action: it becomes inflamed and thickened, and the fluid which it contains acquires a reddish hue. One peculiarity worthy of remark is, that at this period of the disease the anterior surface of the navicular retains its entire integrity; at least I have never seen any alteration of it, nor any case in which the caries pervading the substance of the bone has reached this surface, has come under my notice. The cause of this phenomenon is doubtless to be found in the great density of the compact bone; the osseous tissue has, according to Richter and others, less tendency to inflammation, from its being more impermeable, and the calcareous salts being more concentrated in it. I must add, that in chronic podotrocholitis I have never happened to meet with any purulent secretion. It is true that Turner* speaks of ulceration of the trochlean cartilage; but he does not say that he found any pus. Besides, his language is equivocal; perhaps by ulceration he only means softening of the cartilage. In the bursal membrane a yellowish white flaky fluid is sometimes found, which, if examined superficially, might easily be mistaken for purulent matter: it has not, however, any of the characters peculiar to pus. Cloquet and others, not having always met with pus in the caries, have consequently admitted the existence of *dry caries*. It is this form which attacks the navicular bone, and it is perfectly distinct from necrosis as well as from *osteoanabrosis*, with which it ought not to be confounded.

Symptomatology.—Chronic podotrocholitis sometimes comes on

* The Veterinarian, 1829, page 64.

very suddenly. An evident lameness succeeds to violent exertions; to a hard and hasty course; to leaps, &c. But in by far the majority of cases it developes itself insensibly, and its progress is so slow, that the commencement of the affection generally passes unperceived. The position of the limbs in the stable furnish the first indications of its existence. While the healthy leg, rested firmly on the ground, maintains its perpendicular direction, the diseased limb escapes as far as possible from bearing its share of the weight; it is held forward, extended from the body, and placed in such a position as keeps it half way between extension and flexion. This intermediate state is in some measure observable at all the joints; the knee and fetlock are advanced slightly forward. From time to time this position undergoes other variations, but the animal never rests upon the affected limb without great care and precaution, and avoids or diminishes the pressure of the heels on the ground. When led or mounted, either walking or trotting, in a confined space, the horse spares his heels in particular on hard ground; the extension of the articulations, especially to those of the body, is not complete at the moment the foot treads the ground. These abnormal movements are, however, scarcely perceptible to those who have not made the subject their special study. The rider, endowed with that instinctive feeling which enables him to detect the slightest defect in the paces, perceives, after a sufficiently long ride, that there is something extraordinary, something irregular in the movement; but he attributes it to the idleness or dislike to work of his steed, and he has recourse to the spur and the bit, or to the whip, in order to excite more action in the hind-quarters; the anterior extremities, in consequence, become more free, the progression is improved, and he believes he has formed a correct opinion.

This doubtful and obscure state may be prolonged for weeks and months before an unequivocal lameness, perceptible to every body, becomes suddenly or gradually manifest.

The following are the characteristic signs of the lameness:— The horse, when put in motion, does not raise the diseased limb so high as the one on the opposite side, which we will suppose to be perfectly sound; he does not throw it out so far; the print of the foot is found nearer to the body, and a little outwards; at each tread the joints are not thoroughly extended; the carpus is but slightly flexed; the pastern bones have less tendency to the oblique direction, approaching more to the perpendicular.

Although the whole of the plantar surface of the hoof touches the ground, the chief part of the weight of the body is thrown upon the toe, in consequence of the limb being but imperfectly extended. These phenomena become more apparent when the

horse is mounted. If the lameness is very evident, the heels scarcely touch the ground, and Turner* states, that he has observed that these parts communicate no motion to the straws of fresh litter at the time the horse is passing over it.

When the horse is first mounted, and before he warms, his pace is much embarrassed; gradually the motions become freer; but a long ride, or heavy fatiguing work, will render the lameness more intense; the diseased limb becomes fatigued, the horse stumbles frequently, and very often falls. Hardly has the animal stopped when the extremity instantly assumes that state of semi-flexion, the body bends forwards, and a general trembling may be perceived, and the pastern is inclined towards the toe. From time to time the animal assumes a natural position, but does not keep it long.

After a few days' or a few weeks' rest the lameness, aggravated by fatigue, diminishes, becomes insignificant, and sometimes entirely disappears; but the moment that any circumstance likely to recall it presents itself, a relapse is certain, and once again it is as bad or worse than ever.

This intermittent lameness, dependant on rest or fatigue, may go on for months, or even years; insensibly, however, it becomes more decided, and at length continuous; not that it ever, at least that I have seen, attains that intensity accompanying the lameness in cases of *podophyllitis*.

When both feet are affected with chronic podotrocholitis, the anterior limbs alternately assume the position we have described, with this only difference, that the one which is most diseased maintains it longest. That one of the extremities on which falls the weight of the fore-quarter, is stiff throughout its whole extent, with the exception of the knee, which is flexed and sometimes arched; the pastern has a perpendicular direction, slightly inclining forwards. In this position the weight falls chiefly on the toe, the navicular bone is raised, and its posterior surface thus preserved from compression.

As soon as the horse finds an opportunity of lying down he frequently avails himself of it; when obliged to move, his paces are shortened, his shoulders appear pinned, and his mode of progression, as Spooner justly observes, has been well described by an English coachman, who said, "The horse moves like an old cripple with two wooden legs." We might also describe it by saying, he walks on stilts. In fact, if urged to a trot, the stiffness of his motions would lead one to suppose that the limbs were destitute of joints, or formed in one piece. At every progressive

* The Veterinarian, 1830.

movement the hind-quarter muscles receive a sudden and very disagreeable shock, and the horse, though naturally a pleasant trotter, conveys to his rider that short, insupportable sensation called *bone-setting*. This may easily be conceived; the articulations are the natural breakers of the shock; their limited functions consequently, considerably diminish the elasticity of the anterior limbs. We find here a manner of progression very different to that of foundered horses. In founder, the animal endeavours to throw the weight on to the heels in order to save the toe, and therefore extends the limb considerably, the fetlock joint as much as possible, and rests on the heels; in podotrocholitis, on the contrary, he avoids all pressure on the heels, advances the limb less, flexes it but slightly, and endeavours to throw the centre of gravity upon the toe.

We have been occupied for some time with the morbid phenomena furnished by the limbs; let us now pass to the local symptoms.

At first, the hoof presents no alteration that can be considered as the consequence of the podotrocholitis; it is, nevertheless, not unusual to meet with various degrees of contraction, its usual form being that of partial contraction of the wall. The increase of temperature, the evident pain produced by compression of the sole and wall, the strong and accelerated pulsations of the lateral arteries, signs which lead us to be satisfied as to the presence of an inflammation of the tissues contained in the horny box, are ever wanting at the commencement of podotrocholitis, and the two last-mentioned symptoms are not perceptible during the whole course of the disease. The more frequent pulsations of the lateral arteries are considered by Turner as an important sign. I have never observed them; and on this point I perfectly agree with Hausemann, who says, "In these two affections (the navicular disease and ring-bone), which bear great analogy with caries, the number of the pulsations of the lateral arteries is not augmented. This negative symptom is so invariable, that it may serve as a diagnostic to the veterinarian." There is no doubt in my mind that Turner has made a mistake, and confounded some other affections of the foot accompanied with pulsation of the arteries, with chronic podotrocholitis; and this supposition acquires more certainty when he adds, that in the navicular disease the lameness may be equally great as that following fracture of the pastern, an alleged fact I have never observed.

When the affection has existed for several months, for a year or more, sometimes a slight degree of tumefaction appears round the coronet, accompanied by a little heat and sensibility, in its nature analogous to that swelling which succeeds to a partial con-

traction of the wall under the coronary border. It is probable that in podotrocholitis the same cause produces the same effect. If the foot is raised, and firm pressure be made upon it between the heels, directed towards the flexor tendon, the horse will sometimes shew that it causes pain.

Ultimately, according to the degree in which the horn is contracted, the foot appears to become either entirely or partially atrophied. In the former case, the transverse diameter is so narrowed that it cannot escape the notice of the least practised eye of a person placing himself in front of the animal; in the second, the contraction varies according to the region in which it is seated. In general it presents itself on the internal side of the wall, and a uniform contraction of the inside quarter is perceptible; sometimes it also comprises the outside quarter; at others, either the wall or the quarter presents partial contraction below the coronet, or both these parts are contracted at once, so as to present the segment of a circle, the central point of which is found outside of the foot. The wall is at the same time uneven, circled or furrowed (*keraphyllocele* of Dord, *karacele cicloïde* of Vatel*). The temperature of the hoof is occasionally slightly increased. Conjointly with these alterations and deformities, or long after they have begun to manifest themselves, the muscles of the shoulder of the diseased limb become atrophied from want of exercise.

I repeat, the morbid disorders which manifest themselves in the foot and the shoulder never appear during the early stages of podotrocholitis; before they are perceptible the disease has become highly chronic. We must not, however, conclude from their absence that the disease does not exist; for these phenomena do not belong exclusively to it, but may present themselves independently of it.

If I have not succeeded in tracing out so clear and graphic a picture of chronic podotrocholitis as the one existing in my own mind; my sketch, nevertheless, contains the characters of the disease as it is generally met with; albeit, it possesses divers and various modifications, especially when complicated with other affections of the limb. The diagnostic then becomes difficult, and often impossible. Such doubtful cases cannot be collected under any general heads; they must be studied in all their various aspects, and they require for their description an accurate knowledge of their pathology, experience, sound tact, and clear judgment.

[To be continued.]

* In England often described as *rimmy*.

THE VETERINARIAN, JULY 1, 1846.

Ne quid falsi dicere audeat, ne quid veri non audeat.—CICERO.

THE last General Meeting, begetful as it was at the time of any feeling save one of unanimity or harmony among the Members of the Profession, has, nevertheless, in its results been productive of benefit. The undisguised display of faction on the occasion has served the good purpose of opening the eyes of Veterinary Surgeons: they now know their friends, and must one and all feel convinced that the time has arrived when toleration and forbearance must give place to action and exertion in the maintenance of that Charter which they have been at so much pains and expense to obtain.

As a body acting together in one united whole, the Members of the Veterinary Profession have a part to perform altogether new to them. In times past, the only professional unions that subsisted among them have been such as took place at "College" between them as pupils of the same school, or between them and their teachers, or between them as members after having left "College." But now they are called upon to act, *all together*, in one united professional body.

And the advantages derivable from such aggregate action are twofold. One is, that by working together they may be able to exert a power and influence they could no how create in detached bodies; another is, that they may, thus joined together in one common cause, enlist in their interest persons of rank and horse celebrity, and prevail upon them to assist them in the high and important objects they have in view. In a sporting and racing country like ours—a country teeming with the fleetest and best horses in the world—a country whose inhabitants are unsurpassed for their love of horses, and their patronage and liberality towards all that they do love—shall it be said that the VETERINARY ART lacks support? Surely, No! To make certain of such needful

support, the Chartered Body has but to render it manifest to an enlightened and horse-loving public that their grand object is to send forth into the country men of higher pretensions as Veterinary Practitioners than have hitherto been sent, and thus to contribute to the profit of the agriculturist, the racer, the hunter, and proprietor of horses in general;—in short, to give them a Veterinary Practitioner who shall, in their estimation, hold the same proud pre-eminence over one of another country as our horses and cattle hold at present over every known breed in the world.

Can VETERINARY science lack this support in Britain, a country wherein all other arts and sciences flourish through public patronage in such eminent degrees? Can the horse, the ox, the dog, the sheep, stand in want of a friend in sickness and suffering in a country where birds are nursed and flowers tended with nurturing care? Will Britain take less pride in her Veterinarian than in her horse or her ox? No such thing! Too well is the worth of one known and appreciated for the sake of the other, and on account of that other will a British public liberally lend its aid in promotion of veterinary science, its professors and practitioners.

For these reasons we augur well of the success of the appeal about to be made to the Public—as will be seen in the report of the proceedings of our Council—as well in the form of a *public meeting* as of a *public dinner*. Important steps, however, of this character must by no means be taken in a hurry or unadvisedly. As their success cannot fail to insure the objects sought for, so their failure would cast a heavy damper upon the Chartered Body. Men of first-rate rank, distinguished no less for their love of horses than for the weight of their names among horse persons in general—men standing high on the turf, in the camp, in the hunting-field, and in the plough-field—all these must be canvassed beforehand, and their faithful promises secured to attend at such meetings, and there and then take such parts as will best insure the ends in view. And at these meetings, it is our opinion, measures might be taken to, at least, *sound* some of the more influential among those assembled concerning the expediency or propriety of petitioning Parliament in aid of our Chartered Body. In times past, Ministers materially assisted the Royal Veterinary

College, a private institution: with equal and more reason might they now aid us, a public and chartered institution. At all events, we think the matter is worth trying, and recommend its serious consideration to the Council.

It will be seen—from our report of their proceedings—that the Council have adopted the resolution passed at the General Meeting for an annual subscription, though, through some oversight occasioned by the hurried and somewhat irregular manner in which the resolution was put and carried, it was omitted to be mentioned by our reporter. Their circular, announcing the commencement of an annual subscription, appears below. We feel assured it will, by all who reflect upon the circumstances under which the Finance Committee incurred the debt, be cordially responded to.

Sir,—THE Royal Charter of Incorporation, granted by Her Most Gracious Majesty, has now for more than two years been working most satisfactorily to the profession, and an early application to Parliament for the obtainment of certain immunities and privileges is at present under consideration: the expences, however, of obtaining the former have not yet been liquidated, and a source of income that may, to a certain extent, be relied on, is absolutely necessary to secure the latter. Under these circumstances your Council have decided on calling on the general body of the profession for a moderate annual subscription of not less than Half-a-Sovereign, and they hope to have the gratification of adding your name to the List of Subscribers.

Subscriptions will be received by Messrs DRUMMOND, *Charing Cross;* Mr. F. KING, Jun., the Treasurer, *Stanmore;* or by

Your obedient servant,

E. N. GABRIEL, *Secretary.*

Rolls Buildings, June 24, 1846.

SUBSCRIPTIONS RECEIVED.

	£	*s.*	*d.*		£	*s.*	*d.*
Braby, Edw.	1	0	0	Mayer, T., Sen.	1	1	0
Baker, Geo.	1	0	0	Mayer, T. W.	1	1	0
Dunsford, Jno.	1	0	0	Moss, F. W.	1	1	0
Ernes, Wm.	1	0	0	Nice, J.	1	1	0
Field, Wm.	1	0	0	Percivall, Wm.	1	1	0
Gabriel, E. N.	1	1	0	Robinson, W.	1	1	0
Henderson, Alex.	1	0	0	Rogers, Alfred	1	0	0
Henderson, A. B.	1	0	0	Sewell, Joseph	1	1	0
King, F., Sen.	1	1	0	Turner, Thos., *President*	1	1	0
King, F., Jun.	1	1	0	Turner, Edw.	1	0	0
Mitchell, B.	1	0	0	Turner, Jas.	1	0	0
Mayhew, E.	1	1	0	Withers, S. H.	0	10	0

VICE CHANCELLOR'S COURT.

[Before Sir L. Shadwell.]

Woodin v. *Field.*

MR. Bethell, with Mr. Beavan, moved to dissolve a special injunction which had been obtained *ex parte* on the 27th of April, 1846, restraining the defendant, who is a veterinary surgeon, from manufacturing and selling certain horseshoes, alleged to be an infraction of the plaintiff's letters patent. The peculiarity of the invention was alleged to consist in adding a rim to the upper surface of the shoe, the effect of which was to protect the nails from friction, while, at the same time, it rendered the footing of the animal more sure upon a slippery surface. The learned counsel submitted that there was nothing new in the invention. So long ago as the year 1609 there was published at London, imprinted for the Stationers, a treatise by Blundeville, entitled the "Four chiefest Offices belonging to Horsemanship," in which the horseshoe in question was plainly described. Mr. J. Parker, with Mr. Birkbeck and Mr. Webster, were heard *contra.* The Vice Chancellor said, that, when this case came before him on the 27th of April, he had a strong foreboding that the plaintiff's case was such that it would not long be suffered to remain undisturbed. He thought there was so little of invention about it, that there would soon be a discussion on the validity of the patent; and so the event proved. He thought there was nothing in principle which differed from the description in Blundeville. He described the horseshoe as being protected by a welt, which was as high as the nails, and saved them from wearing. There might be a difference in the adaptation, but there was none in principle, for the thing was described almost in terms in Blundeville. It was a simple imitation of the cloven foot of the animal; but there was no patent taken out for the adaptation. In his opinion, therefore, the injunction must be dissolved with costs, including the costs of the affidavits which had not been read.

THE

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LAMENESS.

By WILLIAM PERCIVALL, *M.R.C.S.*

TREATMENT OF SPAVIN.

[Continued from p. 366.]

Remedies for Spavin.

AS soon as it is ascertained that a horse's lameness proceeds from the existence of spavin, every person of any experience in the affairs of the stable will tell you at once, that the remedy is *blistering* or *firing* the hock. These, we have seen, constituted the curative agents of the farriers before our time; they are in no less estimation by farriers and others, nay, by veterinarians too, of the present day. Were I disposed to follow the current of opinion, professional as well as unprofessional, I might, therefore, sum up the treatment of spavin in two words, *blister* and *fire*, or *fire* and *blister*. Not that it is my intention to speak disparagingly of these two popular, potent, valuable remedies; only to inquire whether they really possess in themselves value sufficient to engross our attention to the exclusion of all others.

With no disease has empiricism made itself more busy than with spavin. Be the disease within or without the joint, by nobody has it ever been regarded as *constitutional*. No veterinary surgeon has ever suspected spavin to be connected with any rheumatic or other disordered state of the constitution; and on this account, on account of the undisturbed good health spavined horses commonly enjoy, and the conclusion, therefore, that the disease of the hock was purely local, as well as from the conviction of the uncertainty or hopelessness of recovery through ordinary remedies, have, it would seem, more experiments been made

for the cure of spavin than in the case of almost any other disease. Some of these have been truly mechanical, rude, and even barbarous in their nature; while others have been based upon scientific views, such as have been entertained by their projectors; though, after all, as I have already more than once observed, are we at the present day found practising blistering and firing, the same as was practised a hundred years ago by our professional predecessors.

The notions respecting the nature of spavin of the farriers of former days were precisely the same they are with the professionally unlearned of the present day: they find the horse lame in the hind limb, it is pretty evident his lameness proceeds from his hock, and it is manifest he has a bony tumour thereupon, and, therefore, the natural inference was—has been all along, indeed, until Mr. Goodwin demonstrated its fallacy—that the *exostosis* was the whole and sole cause of the lameness. Nothing, therefore, seemed required but to get rid of this tumour; and the simplest and readiest way of accomplishing this, appeared at once to

SAW OR CHISEL OR RASP OFF THE EXOSTOSIS. And, so far as the prompt removal of an osseous tumour goes, surgeons up to the present day have devised no simpler, safer, or more summary mode of proceeding than by operation. Many years ago, a person who had obtained some celebrity for curing spavined horses, came from one of our northern counties to London, and in consequence of representations made by him to the Board of Ordnance had permission granted him to make certain experiments at Woolwich on horses belonging to the Royal Artillery, to be selected, on account of having spavins, by my father. This man was dexterous enough in his handicraft. He cleverly dissected the skin off the exostosis, and afterwards, with a common iron chisel and wooden mallet, chiselled off the osseous tumour, and then brought the divided portions of skin together, and, if I remember aright, secured them by ligature. So far all appeared plausible enough. But the operator had not calculated on or seemingly cared for the consequences of an operation so purely mechanical and rude. He had not foreseen what was sure to follow, *inflammation*, and inflammation it might be, and in some of the cases proved, of that acute and destructive character which would almost for certain leave the hock in a worse state than it was even in its purely spavined condition. Nay, in one or two instances the hock joint became opened from sloughing, consequent on the operation, thereby endangering not the limb only, but the life of the animal. The saw would have been a less offensive instrument for such an operation than the chisel; indeed, with a saw such as is used for like purposes by surgeons, the removal of the tumour might have been effected with

comparative safety. I have heard a veterinary surgeon say, he has used the *horse-rasp*. In any case there exists danger of inflammation ensuing; added to which, there is to be considered, that, although so much of the ossification may be removed as constitutes the "lump" or swelling, the base or bed from which such tumour has grown still remains, uniting the cushion, and other bones as well, perhaps, as fixedly together as ever; and that, as for the ulcerative disease within the joint, supposing such to exist, that cannot, of course, be in any way ameliorated, supposing it not to be aggravated, by such an operation. Lastly, we must not be surprised if a second and larger spavin should grow in the place from which the first has been removed.

CAUSTIC has been employed to remove the exostosis. "Bold ignorant men," as Gibson calls them, have done a vast deal of harm by the indiscriminate use of caustic applications of the most potent nature—such as arsenic, corrosive sublimate, &c.; at the same time, it is not to be denied that remedies of such powerful agency in the hands of those whose observation and experience has taught them their legitimate use, are neither to be dreaded nor despised I should, myself, lay it down as a rule, on no occasion to be departed from, that *high* or genuine spavin, i. e. exostosis seated upon the cushion bones, is not a case for the employment of caustic, owing to the contiguity of the hock-joints. But that the *low* or spurious spavin—that which is veritably but a hind splent—is the apposite case; and that to "take off" such an exostosis, caustic has been, and, I believe, by an old and respectable veterinary practitioner of my intimate acquaintance continues to be, used with satisfactory results. The mode of application is this:—With a sharp-pointed conical—sort of elongated budding—iron, red hot, bore holes, half an-inch, more or less, in depth, according to the prominence of the tumour, into the exostosis, and fill these perforations with a paste composed of white arsenic and flour. In due time deep sloughs will separate, bringing away the substance of the exostosis, and curing probably the lameness, but leaving a wound to granulate and cicatrize, ending with enlargement of the hock, both general and permanent.

PERIOSTEOTOMY as proposed by Mr. Sewell, the present Professor at the Royal Veterinary College—in imitation of the operation surgeons were in the habit of practising for the mitigation or removal of the pain caused by nodes—constitutes the neatest and most scientific operation for the cure or relief of the lameness arising from exostosis. The theory being, that in splents, &c., as in nodes, the pain arose from the tension produced in the periosteum by the pressure of the tumour growing underneath it, division of the periosteal membrane, by slitting it or otherwise,

appeared all that was required for the easement of the lameness. Impressed with these notions, and sanguine in so simple a method of cure, Mr. Sewell, in the year 1835, made known to the profession, his "New Operation for Curing Lameness in the Horse, generally caused by Contusions which occasion Periosteal and Ossific Diseases," in a printed circular, from which I take this introductory sentence, and am now about to make some further extracts*. Condemning "the old practice of firing, applying caustics, puncturing, bruising, blistering, or other stimulants," as inefficacious, Mr. Sewell (in the circular) informs us that he had "for several years employed *setons* beneficially;" "but now," he adds, "I invariably adopt the new plan." "In chronic cases, previous preparation is seldom necessary, beyond keeping the parts for a short time wet with cold water; but when the inflammation is acute, attended with swelling, and a tense adhesion of the skin, these symptoms should be first allayed by topical bleeding, fomentations, poultices, and the administration of a purgative, until the skin is relaxed."—"Commence the operation by taking up the skin between the finger and thumb of the left hand, and make an orifice with a knife, lancet, or with scissors, sufficiently large to admit the probe-pointed periosteotomy knife, which pass under the skin the whole length of the ossification. Then withdraw it, cutting through the thickened periosteum, down to the bone."—"If the disease or lameness be of long standing, a small tape or thread seton may be inserted, and kept in a few days."—"The operation is very easily performed, in from one to three minutes; but I consider it necessary only when there exists actual lameness. This, in the majority of cases, is *immediately* removed. A slight inflammation and swelling supervene the next day. The part may be fomented, and moderate exercise given, and generally in about ten days or a fortnight the animal is fit for work. The enlargement considerably subsides, and in some cases becomes quite absorbed."

Although Mr. Sewell has not mentioned *spavin* as curable or relievable by periosteotomy, yet it is sufficiently evident that when spavin consists purely in exostosis—as in the form of *low* spavin or hind splent is the case—it is as susceptible of benefit from such an operation as any other exostosis; and, by way of proof, I may mention I have known lameness arising from spavin of this description removed in this way.

There can be no possible objection to an operation so simple,

* A copy of the circular, I believe, was sent to every member of the profession. It being, however, now eleven years since, it is possible many may have lost or mislaid their letters; and therefore it is that I make my extracts full and sufficient in this place.

so harmless indeed, as periosteotomy; all that we have to desire is that it were more generally successful than in practice it is found to be. Were the pain, the cause of the lameness, the product of distention alone of the periosteum, we might place great reliance on periosteotomy; but, when we know that the *callus* of the exostosis is a *nidus* of inflammation, and, consequently, a source of pain *in itself*, we lose confidence in an operation which effects no more than the relief of the membrane covering the tumour. This constitutes the principal cause—there being other minor causes—of the failure of periosteotomy in pure exostosis. To the articular disease of spavin it is, of course, altogether inapplicable.

Were spavin nought but exostosis, there would be nothing in the way of the horse's restoration to soundness; the inflammation and pain attendant for a longer or shorter time on the callous or osseous tumour being relievable in a variety of ways, though by some more promptly and effectually than by others; whence have arisen the number and diversity of remedies proposed or practised at one time or other for spavin. The disease within the joint, not being known, was left out of the account of treatment. Defective pathology has led to insufficient or erroneous therapeutics; and, strange to add, even now that the former is amended, the latter still remains unimproved.

COUNTER-IRRITATION will be found to be the leading principle on which the treatment of spavin has hitherto been conducted, and it is a principle in entire accordance with the new lights thrown upon the pathology of the disease, and one on which we are still mainly if not exclusively acting in our therapeutics: at the same time we have a right—nay, it is our bounden duty—to inquire whether or not counter-irritation includes *every* therapeutic agent of use to us in our attempts to remove or relieve the lameness arising from spavin. We must bear in mind that spavin, which has hitherto been treated as consisting simply in exostosis, has to be regarded by us as a disease of the synovial membrane and articular cartilages, and, further, that it is to the *breeding* rather than to the development of the disease that our efforts must be directed, if we would hope for a favourable result. I hesitate not to assert that great error, under delusion of external appearances, has been committed in the ordinary modes of treating spavin; and to add, that it is high time this error, so serious to our patients and discreditable to ourselves, should be corrected.

ON BONY DISEASES OF THE HOCK.

THE insufficiency of the nomenclature used by veterinary writers cannot fail to strike any reader at all conversant with the use of names and classifications in science, especially in human surgery and medicine. This want of specification was pointed out in No. 218, p. 85, where it was suggested that separate names should be used for the different bony swellings of the fore leg, hitherto indiscriminately called *splint*.

Mr. Percivall having now concluded his very learned and scientific treatise on Spavin, it is time to regret that he has allowed himself to be so much hampered by existing names and divisions, instead of pronouncing and naming the distinctions to which his own investigations directly lead.

It is not too much to observe that, under the name of spavin, he has (as have also Messrs. Youatt and Blaine) treated of and almost confounded two diseases, distinct and even opposite, in cause, origin, progress, and requisite treatment; namely, bone spavin and another disease, which he has described pp. 302, 3, 4. This latter ought to have had a different name; and, for distinction's sake, it is proposed to call it the *Inner hock disease*.

An attempt will be made to distinguish these diseases, more with a view to give a clear direction to veterinary inquiry than to demand assent to a theory, though that theory logically results from the principles and cases laid down by Mr. Percivall.

For this purpose *spavin* (i. e., what is commonly called bone spavin) will be defined as *an exostosis or bony swelling on any part of the joint, or set of joints, called the hock*.

Two services Mr. Percivall has clearly rendered the veterinary profession and the public. He has given the sanction of his authority to the doctrine that *spavin* is not necessarily productive of lameness or unsoundness, and he has helped to disabuse his brethren of Professor Coleman's incomplete and erroneous notions as to *spavin*. In the first he was preceded by Mr. Youatt in the 1843 edition of "The Horse." Indeed, it is high time that veterinary writers and practitioners should keep pace with the practical observations of horsemen. Let them attend a sale of crack hunters at Tattersall's, and the prices given for horses with obviously large spavins will satisfy them that sportsmen, at least, regard spavin as not much detracting from the value of a horse. A minute specification of the various places of the hock on which bony swellings may appear, will tend to shew that sportsmen are practically right.

For this purpose there may be specified three places on the hock where spavins may appear.

1st. What Mr. Percivall calls *low spavins*, p. 182. In p. 125, 6, he minutely describes the mode of examination for spavin, and directs the eye to the seat of spavin. Now, it may be fairly doubted whether the swelling so visible at the head of the shank bone be a spavin at all, inasmuch as it may be, and generally is, confined to the head of the shank bone, without at all interfering with the jointing of that bone with the cushion bone above; and the splent of the hind leg may be also free from this joint, and, if not very large, would not be visible from the position he puts the observer into: and both these swellings, if full grown, may be perfectly innocent, and generally are so. Indeed, Mr. Percivall himself, p. 182, pronounces them to be so. Swellings, also, apparent very high on the hock, though seemingly within the above definition, are, in reality, not spavins; that is to say, swellings either on the internal malleolus of the tibia or on the os calcis, above its jointing with the other bones of the hock.

2dly. The swelling may appear on either of the middle bones forming the hock; namely, the cuneiform or wedge bones, and may be clear of the jointing with the next bone, as described in "The Horse," p. 364, 1843 edit. Spavin so situate may be also innocent.

3dly. When the bony swelling, however originating, affects the jointing of any two bones, the spavin becomes noxious and productive of more or less mischief. Veterinary science has certainly not advanced so far as to pronounce with certainty the mode or extent of mischief produced by spavins even on the jointing; for an experienced and skilful veterinary surgeon has recently shewn the writer of this a specimen of spavined hock with diseased bone across and uniting the two bones. The horse, when living, was under his eye daily; and though the spavin was apparent, there was scarcely any lameness.

Looking at spavin with a view to a proposed purchase, or in case of dispute, the veterinary surgeon's duty is certainly difficult: he must ascertain as well as he can the precise position of the apparent spavin in a horse going perfectly sound; the history and age of it; and unless he can fairly see his way to the opinion that the spavin, though now innocent, is in its ordinary progress (p. 142) likely to damage the horse, he ought not to reject the horse as unsound. The common knots or *jacks*, as the dealers call them, certainly ought not to be considered unsoundness, unless there be lameness.

The other disease usually confounded with spavin is called improperly an "occult hock lameness"—there being, in fact, a lameness visible, but the cause occult—in the present state of veterinary

science it is believed to have only one cause, namely, the inter-osseous disease, described by Mr. Percivall, pp. 302, 3, 4. This it is proposed to call *the Inner hock disease.* Now, assuming that the *Inner hock disease,* as described (pp. 302, 3, 4) by Goodwin and Percivall, is the cause of lameness, this is a totally different disease from spavin.

Spavin may and probably does originate in the constitutional tendency of the horse to throw out bone, called by Mr. Percivall, p. 123, the *ossific diathesis.* It may be perfectly spontaneous like splint, and other bony swellings, in the fore leg. It may or may not be caused, or set in action, by extra work; or it may, when originating spontaneously, be encouraged in its growth by work. It may cease in its growth without doing any permanent mischief. On the other hand, the *Inner hock disease* commences in an inflammation of the synovial membrane, proceeds to ulceration, and then to caries of the bones: it is, in fact, a disease precisely similar to the navicular joint disease, whereas spavin is very similar to ringbone. The navicular joint disease is allowed by veterinary surgeons to be almost incurable—certainly so, if it has proceeded to ulceration; so the *Inner hock disease* would appear to be incurable after a certain stage. Ringbone, on the other hand, is manageable and within reach of cure by the iron. So is spavin.

The *Inner hock disease* would obviously, like the navicular, be the result of over-exertion, call it concussion, or whatever else. If there be any truth in the philosophy of firing, it is obvious that it must be totally inapplicable to the navicular and the *Inner hock diseases.* Firing cures ringbone and spavin, by causing the taking up or stopping the growth of the bony deposit. When caries of the bone has commenced, firing can never replace lost bone. It is possible that, in the incipient stages, firing may be of use; but inasmuch as the disease is not suspected until indicated by lameness, and that generally increasing, it is most likely that the disease will have got beyond the manageable point before surgical aid is required. How far these two diseases may run into each other, veterinary science, in its present state, does not clearly explain. It is remarkable that in all the cases described, pp. 304-5-6, there was no appearance of spavin either in the living or dead horse. But Mr. Percivall, after describing these two different diseases, p. 305, says that "in the end both diseases change into one and the same morbid action of ossification," without, as it would seem, adverting to the distinction of morbid deposits of bone and caries, or wasting of bone. In the specimens exhibited by Mr. Goodwin, p. 303, there was only caries.

That a spavin affecting a joint may cause inflammation to the synovial membrane, which may spread inwards and proceed to

ulceration and caries, is intelligible; that the *Inner hock disease* should change from caries to a bony swelling when it reaches the outside of the hock is not probable. Various arguments will occur to the surgeon tending to prove these two diseases to be distinct; the one, viz. spavin, commencing externally; the *inner hock disease* commencing internally. The ordinary account of spavin lameness, namely, mere stiffness at first, and that going off in action, and this lasting for years, consists entirely with the above theory of spavin; but it is utterly inconsistent with a disease commencing internally and consisting in inflammation of the synovial membrane, when it would seem there must be lameness.

Blaine commences his chapter on *spavin* with some remarks on the proceedings of veterinary professors, well worthy of their attention, 1841 edition.

The history of this subject shews curiously the use which veterinary writers make of their own and their fellows' discoveries. In the year 1830 (see pp. 302-3), Goodwin promulgates his "altogether different ideas of spavin from past and present authors," and, in fact, demonstrates a different disease. Shortly afterwards (see Blaine, p. 474), Youatt shews that Goodwin's discovery is that of a different disease, requiring a different name from spavin. Blaine, in 1841, though approving of Youatt's suggestions, continues the old confusion. Youatt, in 1843, forgets his own views of Goodwin's discoveries, lumps all the diseases under the head spavin, and even adheres to Coleman's now-exploded notions. In 1846, Percivall adheres to old names and terms whilst absolutely demonstrating distinct classes of disease, and so palpably as to strike the eye of an unprofessional reader.

Surely this ought not to be. In the progress of science every discovery is a step in advance, giving vantage-ground, from which steps forward should be made. In fifteen years Goodwin and Youatt's notions ought to have been displaced or to have obtained the position of fixed principles.

The object of the writer of this is to place clearly before the eyes of the profession the problems requiring solution. If truth be obtained, even by the disproof of all his own notions, he will have done good. The importance of practitioners keeping an eye on spavined horses going sound, with a view to dissection, is not sufficiently kept in mind. Studs of hunters furnish frequent instances, and sportsmen would give facilities. Such dissections would throw light on this interesting but not well understood subject.

INTESTINAL ANASARCA, WITH ASCITES.

By Mr. W. A. CARTWRIGHT, *M. R. C. V. S., Whitchurch, Salop.*

ABOUT 6 A.M., 8th May, 1846, I was called upon to attend a half-bred mare, supposed to be unwell. She had been running out at grass for a few days, but was used in the day-time to take an old gentleman over his farm, during which time, at intervals, she had to stand in the cold, at gates, &c.

Symptoms.—Those of an ordinary cold—slight sore throat, with œdematous swelling under the jaws. Quick feeble pulse. Is and has been purging a little.

Treatment.—Took about three quarts of blood from her, which proved deeply buffed. Ordered that her throat be continually fomented; that she be kept warm with clothing, and that the stable be well ventilated. Gave no medicine, as we thought the purging would subside and might prove of service to her.

9th.—The groom, this morning, found her purging considerably. I was sent for, and arrived at 7 A.M.

Symptoms.—Her throat is now scarcely at all sore, and the swelling underneath is gone. She has been purging and straining, and several œdematous protuberances have made their appearance at the anus, issuing from the rectum. These tumours are evidently portions of the mucous membrane, produced through distention with lymph and serum, and forced out and constricted by the continuous contractions of the sphincter ani. I tried to force them back, but could not. Her bowels were rumbling a great deal, and occasionally purging. I gave pulv. opii ʒss in a little gruel, in order to allay irritation. Ordered her to have no solid food, but to be drenched now and then with gruel.

3 P.M.—Does not purge or strain any thing of importance. The tumours are not at all reduced, nor have they receded into the rectum. The anus to be continually fomented.

I discovered now for the first time that there was an incision of an inch long in one of the lower tumours, but how produced no one knew. Pulse feeble; general appearance good: would eat, but is forbidden.

10th, 9 A.M.—The tumours at the anus have retired within the sphincter, or else they have become absorbed. There is no apparent irritation about the anus; no purging, and the bowels are quiet; looks lively, and is warm and comfortable. The pulse I am not satisfied with, being small and feeble. Ordered that she should have a scanty mash, and a little grass, in the course of the day. Gave a little ol. lini. Towards night she appeared somewhat dull, but there were no symptoms of pain.

11*th*.—At 5½ A.M. she was observed to be uneasy, purging, and straining, and in consequence her owner gave her a dose of some quack medicine, which seemed to relieve her.

On my attendance this morning (8 o'clock), I was very much surprised to find that a considerable change for the worse had taken place since I last saw her.

Symptoms.—I was given to understand that she had been uneasy, pawing, sweating, and getting up and down a good deal, from the time she was first seen this morning to the present. She is now very weak in her hind quarters, and there is some swelling and tenderness in the near hind leg, below the hock, like farcy humours. There is also a large œdematous tumour underneath her belly, between the umbilicus and udder. Pulse is scarcely perceptible, either at the jaw or side; does not sweat; is very lively about the head: respiration a little increased.

I bled her, but obtained little blood, and that was very black. Gave a small dose of opium by mouth and anus, and rubbed a mustard embrocation on her abdomen. About an hour afterwards she died.

Examination.—On laying open the abdomen, about two or three gallons of clear serum escaped. The peritoneum did not shew indications of inflammation.

We next drew the intestines out of the abdomen. They felt hard and thickened.

I now slit them open from beginning to end. The entire substance of the small ones were thickened; the mucous membranes were but little inflamed, but were thickly coated with mucus. The large ones presented a mass of disease: there were large corrugations of various sizes projecting into the intestinal canal, formed by excessive effusion of lymph and serum, but principally of the latter, into the cellular membrane between the muscular and mucous coats. This existed principally in the cœcum and colon. The rectum was but little altered. The heart was of an enormous size. On skinning the near hind leg we discovered very extensive inflammation, extending from the hock to the foot, both within the cellular membrane and sheath and substance of the flexor tendons. Indeed, I could not have conceived that there was such a congeries of bloodvessels about the parts, nor that the tendon could have been so beautifully injected.

Observations.—I am now inclined to think that, even when I first saw this mare, there must have been serious disease existing and going on in the intestinal canal, although her symptoms generally did not at all clearly indicate it. Most of the time the pulse was quick and small, nor were there any symptoms of pain or uneasiness—nothing more than borborygmus and moderate purging.

There was not the least appearance of that sanguineous extravasation which we generally find in most cases of enteritis. Indeed, I do not recollect ever meeting with a case of similar œdematous extravasation of the bowels, although I have opened hundreds of cases of enteritis. I am inclined to believe that this attack was brought on from the conjoint effects of exposure to the cold winds while standing in the gig, and from being turned out into young grass in a flooded meadow, and lying out at nights too soon in the season.

The owner informed me he had given, in the course of the previous week, about ℥iv of potas. nit. combined with sulphur, and likewise some before. This, probably, might have been a predisposing or exciting cause of the disease.

During the time I attended her I had not the least idea she was going to die so soon, as her symptoms did not indicate any thing serious, or betoken violent disease going on in the bowels; yet the quick small pulse, which I attributed to the purging, led me to believe that all was not right. If I could have imagined there had been such copious effusion taking place, I certainly should have been more active in my treatment; but I had not the least notion of it, as there were not, until a few hours previous to her death, any symptoms of pain.

Have you or your readers met with similar cases?*

INVERSION OF THE UTERUS IN A COW.

By the same.

April 18*th*, 1846.—About 5 A.M., a cow, the property of Mr. Deakin, of the Hollyhurst, was discovered to have calved sometime in the night, with her uterus completely inverted.

I was immediately sent for. In about an hour after I was in attendance. The uterus was considerably swollen, and was turning black. I could not detect any injury on it. The placenta was entirely separated from it.

Method of reduction.—As she was lying down, and we could not get her to stand, we placed several battens of straw under her hinder parts, to raise her up a little. I now opposed my fist against the extreme end of the uterus, which appeared thinner than any other part, and resembled one of its horns. I tried to re-invert it into its natural place. After a good deal of trouble I succeeded in

* Under the head of "post-mortem appearances," p. 311, vol. ii, of Mr. Percivall's Hippopathology, Mr. Cartwright will find mention made of analogous morbid changes.—*Edit.*

carrying my arm into the vagina, taking with me the apex of the uterus; but, then, we could not force the swollen sides in: I consequently withdrew my arm, and immediately the uterus fell back into its original place.

On looking at the neck of the uterus, I found that it was very small and contracted, and not above four or five inches in diameter. This made me apprehensive that it would not admit the uterus. I therefore tried to return it by beginning to force it in close to the neck; but I could not succeed at all in this way.

I next essayed my original plan. In a short time I got my hand into the vagina where I had had it before, and, by my assistant's steadily and firmly forcing the sides in around my arm, I at length found the uterus give way and return up; and thus, by perseverance, we restored it to its proper place.

The cow was a good deal exhausted after it. I gave her ʒss of opium to allay any straining, and put a suture through the vulva, and a truss on.

In the afternoon she had two aperient powders.

19*th*, 6 A.M.—The bowels have not been moved, nor has she been seen to urinate.

I sent ol. ricini lb.iss, spt. æth. nit. ʒii, ol. croton gutt. xx, to be given at twice in the course of the day.

20*th*.—I saw her this morning. She is warm and comfortable. Pulse nearly natural. Introduced the catheter, and drew off a considerable quantity of urine; but I think she can urinate without the catheter.

Does not eat.

21*st*.—About the same. Pulse quicker; bowels not opened. Sent aloes ʒix, sodæ sulph. ʒxii, zingib. ʒi, spt. æth. nit. ʒiss, to be given during the day if necessary.

7 P.M.—She has not yet dunged any thing; she urinates; is warm all over; respiration calm and natural; looks rather dull, and her pulse is a little quicker. Does not eat any thing; is not in any apparent pain; has a dew on her nose.

26*th*.—From the last date to the present she gradually sunk, would not eat any thing, and this day she died.

Examination.—I am sorry that I was not present when she was opened, but the uterus was kept for my examination. The butcher informed me that there were nearly two bucketsful of sero-purulent liquid in it. When I saw the uterus it was cut open and laid on the grass; the vagina and os uteri were perfectly sound; the inner lining of the uterus was of a brownish colour, and partially covered with some purulent matter; the cotyledons were nearly absorbed; the coats of the uterus were not much thickened, but within them there were, here and there, some remains of extravasation of blood. Towards the fundus was the most diseased. The

bowels that lay against the uterus were much discoloured. There was no constipation.

Observations.—It appears to me that the os uteri must have been so much contracted after the uterus was returned as not to allow of the serous matter escaping. The liquid, no doubt, was thrown out from the inner membrane; and, probably, the distended and diseased condition of the uterus prevented it from contracting and forcing the liquid out. I am almost inclined to think that, had the liquid been discharged, the cow might have recovered; and this may teach us a lesson to introduce a catheter into the uterus whenever it has sustained any injury like this. We may, if we suspect any accumulation taking place, introduce our hand up the rectum, to ascertain if such is the case; and, if it is so, we may afterwards use the catheter. Throughout the whole period she was ill she did not shew any marked symptoms of pain, such as frequently getting up and lying down, shifting the legs about, or up and down; nor was there any straining or increased respiration. I am inclined to think that the cow would have had a better chance had I passed ligatures through the neck of the uterus, and afterwards amputated it below them, as the neck was sound and not very large. I certainly shall not hesitate to do so in future whenever the uterus is much injured, rather than attempt to return it.

CASES OF DIFFICULT PARTURITION IN COWS.

Cases of difficult parturition in the cow are not often to be found in your pages*, although I am sure many occur worthy of record among your numerous country practitioners. Methods of extraction are met with in some books, and directions given: many of them are mere theories, of so little use, that, when attempted to be put in practice by the young beginner, he finds them, to his great astonishment, to be perfectly impracticable.

In most cases, the cause of difficult parturition is the unnatural position of the calf: that position is said to be produced by some accident to the mother, thereby turning it into the wrong position in the uterus.

Any person having a moderate share of cattle-practice, and who has had a few cases of difficult parturition, will be convinced that it is no easy matter to turn a calf in the uterus, and that it can scarcely take place from any accident that may befal the mother. I am convinced that the calf remains in the position in which we find it in these difficult cases from the first formation.

* Save and except what our excellent correspondent, Mr. Cartwright, sends.—*Edit.*

The most common cases that occur are those where the head is turned back on the shoulder or side, and this is known by the fore feet presenting, and no farther progress being made. On examination, the head is not found in the proper place, the double of the neck presenting.

In this case, the practitioner first fixes two small ropes with running eyes on the fore legs, pushes them a little backward, and introduces his hand (well rubbed over with soap) along the neck. He will first reach the ear, but owing to its slippery state he can derive little advantage from it: it can only assist him in changing the position of the head, should that be unfavourable.

His first hold will be the socket of the eye: this will afford him a chance of moving the head in such a way that he may get his finger into the mouth, and then, by pushing the fore legs back with the other hand, or by the help of an assistant, the head can be brought into its proper position; after which, there is nothing more to be done than to give the necessary assistance an ordinary case requires.

I never find it requisite to fix ropes upon the under jaw; it will bear so very little force. Where much force is necessary (as in case of a dead calf), the rope must be put on the neck.

When it is necessary to take off a fore leg, pull it out as far as possible; make a circular incision through the skin above the knee; slit it up inside the fore arm as far as you can reach; divide the skin from the muscles with the hand; put the running eye of a stout rope where the circular incision was made, and then, applying a little force, the whole leg is brought away, the scapula being readily torn from the shoulder, without cutting. Where turning is required, which is the case sometimes, I have derived much benefit from Dr. Simpson's plan for the human being, using the under leg.—*See London and Edinburgh Monthly Journal of Medical Science.*

By far the most difficult cases are those where the hind parts present, two cases of which I send you:—

On the 23d of April last I was sent for to attend a cow belonging to Mr. Cowan, farmer, at Brians. She had been ill all day. At night an examination was made, when the tail and hind quarters were found presenting. When I arrived, I was told that for some days past the cow had fallen down in the belly considerably. I found the calf presenting with the hind legs forwards under the belly, the hocks resting down towards the udder, and if I may use the expression, on its knees and hocks.

I passed a small rope round the leg, above the hock, of which an assistant kept a steady hold; and, by passing my hand along the leg, the breech being pressed forward at the same time, suc-

ceeded in reaching the foot, then, by flexing the fetlock, and keeping firm hold of it, the assistant all the while pulling the rope, the leg was brought into the proper position. The same plan was taken with the other leg, and extraction performed with still less difficulty. It is very material in these cases to get hold of the foot, and flex the pastern. No possible harm can come to the uterus, as the anterior part of the pastern is that from which it receives most pressure, and the spongy substance which always adheres to the foot effectually protects the uterus from the hoofs.

Two days after the above case, a cow, belonging to Mr. Young, of Bonnyrigg, was seen. She was of considerable size, and had passed off, as they said, "half a hogshead of water." The tail was presenting, and, as the cow was insured, I was immediately sent for. I found the fore feet and hind parts, the hind legs, in the same position as in last case. These I, in the first place, tried to put out of the way, but found it impossible.

It occurred to me there was some malformation; and, therefore, to save the cow, I thought it best to sacrifice the calf by taking off the hind legs. I made an incision above the head of the femur, passed my fingers through the muscles, and around the bone below the acetabulum. Thus I carried a small cord with a running eye round it, while an assistant, pulling the cord, enabled me with a short scalpel to force the head of the femur out of its socket, and by pulling a little more to separate the remaining muscles and ligaments, when the leg was readily brought away. The same plan was pursued with the other leg.

A small rope was passed round before the ilium, and after the calf was far enough delivered the abdomen and thorax were emptied of their contents, and the remainder extracted without much difficulty.

The fore legs were found to turn backwards along the sides, the feet emerging near the tail, from which they could not be turned into the natural position. In performing this operation a short stout scalpel is necessary: a practitioner who can use both left and right hand will find an advantage. Both cows did well.

About three weeks ago I was sent for by Mr. Hunter Dalhousie, Chester, to a cow that had lost the power of her legs. She had fallen down in the field the night before, and could not be got home.

The account given was, that she had been rather unwell, and scarcely able to go for three or four days previous; but as she had not gone past her time of reckoning, calving was not thought of, and particularly since the udder had, within twelve hours, much diminished in size. The cow seemed otherwise prepared.

On examination I found the uterus protruding backwards, the

bladder much distended, occupying the place of, or rather pressing upon, the vagina.

On emptying the bladder I found a stricture of the os uteri to that degree that the opening would only admit the finger. I divided the stricture laterally, dilated the passage with great care, and extracted without assistance a fine lively quey calf.

On farther examination I found another, the fore leg only presenting, and the head turned back on the shoulder. This misplaced limb was put into position without much difficulty; but the other fore leg was fixed so firmly, that several times I came to the resolution to excise it at the shoulder; but, as the calf was alive, I was anxious to preserve both. I tried turning the cow. This succeeded; for it caused the leg to change its position into one which enabled me to fix a cord upon it, and with another placed upon the under jaw, simply to keep the head in position, I soon extracted a large bull calf in perfect soundness. The cow, however, died two days after from fever, begun before assistance was rendered. I have no doubt, had delivery been effected two or three days earlier, that she would have been saved.

Another cow, with her first calf, belonging to Mr. A. Melrose, of Edinburgh, was attended the same day as the last. The head was turned back on the shoulder, and the calf lying on its back. Professor Simpson's method of turning, by operating on the under leg, was successfully put into practice in this case, and a fine calf extracted.

The placenta should be immediately removed in all cases of difficult parturition. It will be always found adhering to the cotyledons, upon the internal surface of the uterus. In order to remove it completely, grasp the protruding part, twist it several times round, but, by all means, avoid pulling. Follow each of the parts (which will have become tight by the twisting) to its attachment to the cotyledon, inside the uterus, where they must be detached, one by one, either by dividing them between the finger and thumb, or, if too strong, by twisting them twice round the fore-finger, and breaking them off. These attachments will be found about a dozen in number, and must be hurt as little as possible in being broken off. It is likewise proper, in all cases of difficult parturition, to give a smart dose of physic.

A CONTRAST.

HEART—ARTERY.	SPLEEN—VEIN.
1. The soluble and nutritious portion of the food passes from the digestive tube into the *lacteals*, and through the *mesenteric glands* and *thoracic duct* into the *left subclavian vein*.	1. The soluble and nutritious portion of the food, as well as the drink, passes from the digestive tube into the *intestinal capillaries*, and through the *mesenteric veins* into the middle of the trunk of that *Great Vein, whose roots are in the spleen, and whose branches are in the liver*.
2. It is a large ARTERY, which takes the blood to the lungs.	2. It is a large VEIN, which takes the blood to the liver.
3. To this artery a HEART* is prefixed.	3. To this vein the SPLEEN is prefixed.
4. Into the heart, *large* VENOUS *roots* go—the cavæ.	4. Into the spleen, *small* ARTERIAL *branches* go — the branches of the splenic artery.
5. Out of the heart comes an ARTERY—the pulmonary or cardio-pulmonic.	5. Out of the spleen comes a VEIN—the splenic or splenohepatic.
6. The reverse or contrary of the ARTERY is the VEIN.	6. The reverse or contrary of the HEART is the SPLEEN.

Diametrically different *anatomical causes* produce diametrically different *physiological effects.*

7. The bloodvessel going to the lungs, consisting of a HEART and an ARTERY, produces a *constant* and *rapid* motion of the blood through the capillaries of the lungs.	7. The bloodvessel going to the liver, consisting of the SPLEEN and a VEIN, produces an *intermittent* and *slow* motion of the blood through the capillaries of the liver.

J. J.

* i. e., one auricle and one ventricle.

A VERY SERIOUS AND FATAL DISEASE AMONG SHEEP (TRAUMATIC ERYTHEMA).

By ROBERT READ, *V.S., Crediton.*

THE month of June is the principal one for the operation of sheep-shearing. In my locality it has been an unfavourable season with the agriculturists. The number of shearlings that have died may be stated to be three out of every ten, or even more. The primary or first cause is a stab, snip, or abrasion with the shears, which, under ordinary circumstances, would have been deemed a mere trifle. Sadly has it been reversed this year. From about the third to the seventh day after the infliction of the injury, the part tumefies and indurates. The skin becomes red and tender, with an increase of heat, quickly followed by considerable serous infiltration into the cellular tissue. more especially confined to those parts in which the gravitation of the fluid is favoured, the abdomen, mammæ, and extremities. The skin also has in some cases a yellow appearance, with petechial spots. The swelling is at first tense, but after a few days it indents on pressure with the finger. The cause of death in the affected animals has been its termination in gangrene.

Various are the conjectures among farmers as to the cause. It is chiefly attributed by them to the hot and scorching weather during the month of June, in conjunction with the attack of the flies. Be the cause whatever it may, it has been an endemial epizootic in my vicinity.

From observations I have made on the disease, I find there is no disposition in the wound to throw out lymph, in order to produce healing by the first act. The wound suppurates, with other symptoms consecutively. The fault seems to be a want of fibrin in the blood, induced under circumstances concurrent with seasonal variations. In the human subject we likewise find erysipelas to be occasionally an epidemic as well as endemic. The farmers or sheep-breeders do not remember the occurrence of such a disease before, therefore, by them, it is considered *new*.

The most successful method of treatment consists in using very energetic depletive measures in the early commencement of the attack, such being attended with fever. These means will not, however, answer after the disease has existed a few days: you will then have to combat a want of necessary vitality in the swollen parts. Gangrene very soon supervenes; in some cases in less than thirty-six hours after the commencement of the attack.

In a few cases it terminates in the formation of matter, but not frequently. Small scarifications with the lancet are occasionally required, and the application of a mild petroleum embrocation during the suppurative stage; and to ward off gangrene, mild stimulants are requisite. The animals must be housed.

I have briefly narrated the malady, and hope its being recorded in THE VETERINARIAN will prove to be the means of eliciting from members of the profession, whether such a disease has been endemial in their locality or neighbourhood.

MR. MAYHEW'S SECOND LETTER TO MR. BARLOW.

To the Editors of "The Veterinarian."

Gentlemen,—I MUST confess that I am much hurt by the answer which Mr. Barlow sent to THE VETERINARIAN. I had anticipated that candour—not to mention honour or gentlemanly feeling—would have suggested the propriety of an opposite course. It is painful to see an individual holding a public situation descending to the meanness of abuse and the grossness of personality, in order to direct attention from blunders and blemishes too great to be defended or concealed.

How much of that which Mr. Barlow has written with the intention of casting odium on myself falls pointless, when I can assert that I am personally unknown to that individual, and have, for years, lived hundreds of miles from the place where he resides! What can he know of me? How does he appear when he ventures to make derogatory allusions to a person of whom he can know nothing? Would it gratify his sensibility if I was to apply to him the only term by which such conduct can be characterized?

Among the ignorant and vulgar, coarseness may be thought wit; and any expression meant to degrade or pain another may be hailed as a joke. In the streets of London, and among the purlieus of St. Giles', "chaff" of this description is highly relished; but elsewhere, by all above the lowest order of society, such language is listened to with disgust.

Mr. Barlow is not so well established in public respect that he can afford thus to fling away his character; and the position which he holds should teach him the absolute necessity of resisting the temptations to which his taste or disposition may expose him.

For myself, I smile: concerning me, personally, he has only, in ignorance, written folly. For him I grieve.

A noble mind is grateful when its errors are mildly pointed out; but I have heard little boys, angry when told they had done wrong, seek to hide their faults by exclaiming, "Well, you did the same; you did so too." These seem to be the models Mr. Barlow aspires to perfect. I simply said, his language was vague, ungrammatical, and unintelligible. I shewed him proof that it was so, and could, were it needed, bring forward many evidences in support of my assertion; but, in kindness, I spared him further exposure, and made no comment on the solitary instance which I adduced.

He wants the generosity to acknowledge truth—he lacks the courage to confess an error; but he meanly seeks to cover a failing by asserting that similar accusation could be made against myself. In proof of his opinion, however, be brings forward nothing, but, while entering into dispute, permits his word to rest on his unsupported authority. Few men in a like position dare exhibit a similar temerity: he, by so doing, lays himself too barely open for me to strike.

He seeks to justify himself, even by contradicting what he had previously advanced. He, to vamp up a defence, openly denies what he before had publicly acknowledged; and, to support his palpable tergiversation, ventures to assert that I condescended to "garble" his language. The facts are before your readers;—let the passages be turned to, and it will then be seen whether I was so much at a loss for argument as to pervert the meaning of an antagonist. I will not disgrace your pages by dwelling further on this part of the subject. Throughout, Mr. Barlow's letter is marked by misstatement. The very first sentence is erroneous. He is more ignorant than should be possible, did he not know that the "head line" to such communications is attached by the editors of journals similar to THE VETERINARIAN.

But I must treat this person with more charity. His intelligence is limited, and his faculty of comprehension exceedingly small; he cannot comprehend plain English: he quotes two sentences of my writing, and openly confesses he cannot interpret them. If such is the case, I am sorry for him; I cannot render them more plain. If he is really unable to make them out, he had better seek the assistance of a governess. Any tolerably educated female will supply "not" to the second, and teach him to construe the first without any such addition. I am, as a member of the veterinary profession, indeed grieved to witness the confession of one of its public teachers acknowledging that he is unacquainted with the language of his country. Such barefaced ignorance I had not imagined could be found in Britain at the present time.

Mr. Barlow's limited power of comprehension should have made

him doubtful of his own judgment; he would not have wronged himself had he been so modest; he is altogether mistaken: the very grounds upon which he pretends to argue are entirely erroneous. Let him get some one acquainted with the English tongue to read and explain to him the paper with which he appears to be so much displeased, and he will find there is no foundation for his displeasure. Had he been in his language ordinarily civil, I should have been most happy to have pointed out to him the meaning he has misconceived, but his unfortunate vulgarity precludes me from undertaking the task.

There is one part of his strange paper which does astonish me, and appears to be so extraordinary that I must be permitted to characterize it as meanly indecent;—I allude to the repeated and fulsome reference made by Mr. Barlow to the gentleman by whom he is retained.

It is always considered indelicate for a disputant to introduce into a controversy the name of any person who may be alive, when such reference is not absolutely necessitated; and when compulsory, allusion is, by gentlemen, only made in the most remote and guarded manner. In Mr. Barlow's instance, the existence of other and earlier authorities did not compel him to the unusual resort. The direct and pandering citation was a purely gratuitous act—a debasing flattery offered to the employer whose establishment he does not think it beneath him to "puff" by an indecorous reference to the notorious "cases." Could this weak-minded young man mistake me for a fitting subject on whose back to placard the advertisement announcing his own distinguished merits, and publishing his purchased adulation of his employer? Indeed, his comprehension is not large!

It is lamentable to see subjects interesting to the public converted into the means of quacking up petty individuals. I wanted to learn if Mr. Barlow was able to teach. I besought him to impart, and begged of him to instruct me. He answers by singing his own praises, and truckling to the party who pays him his annual stipend. I read only that I am miserable, and he is happy—that I am ignorant, and he is learned—that he is experienced, famous, and exalted—that he teaches with success, and is a little deity in his own sphere. He spares no praise to himself, and begrudges no abuse to me; both are equally deserved, and equally creditable: a little proof of his attainments had, however, been satisfactory. I have heard pupils speak of Edinburgh veterinary anatomy without excitement. I have heard examiners mention anatomical teachers without being puzzled to find terms of commendation. I have read essays, and have found in them nothing denoting extraordinary information, but, on the contrary,

seen proof of more than ordinary ignorance. I, therefore, must have some evidence that Mr. Barlow is, by his lofty position and unprecedented acquirements, entitled to play the inquisitor. If he will give me the proof, I shall be happy to be interrogated. Would it not be better for himself, did he, instead of scribbling silly slander and foolish flattery, seek to forget his own desire to be known, and try to earn honestly the notoriety which he now wants to gain by disreputable truculence?

He talks of his anatomy. To scrape out with the scalpel is a dirty occupation, and, unless it be followed for some higher purpose than itself, degrades the party who pursues it. Perhaps Mr. Barlow has to be informed of this. He seems to view the groping about in filth as a noble business, and asks which is the branch of science that ranks superior to anatomy? Now, as anatomy is the lowest branch of science, he may take his choice of the other divisions, and not run much risk of committing a mistake: and if I did not specify the particular study to which I in in one part of my letter alluded, it was because I did not wish to insult Mr. Barlow, by imagining him to be so obtuse as to require obvious instruction. He is certainly unhappy in his capability to comprehend: how he managed to learn so much when he can comprehend so little, is to me a wonder. Whence he gained his knowledge, when he confesses he does not understand plain English, is to me most strange. If, seeing his limited intelligence, I presume to doubt until he adduces some evidence of his proficiency, I trust the generality of your readers will hold me excused.

There is, however, one point upon which I am enabled to congratulate Mr. Barlow; and if with equal zeal he would cultivate his understanding, perhaps, before another month shall expire, I may be enabled to compliment the gentleman upon his being able to comprehend what I have written, and to properly interpret the paper concerning which he seems at present to have no idea.

His manner of putting words together has improved to a greater degree than I could have supposed possible in so brief a period. The change is so sudden and entire, that, in effect, it appears more like a pantomimic trick than an actual circumstance. Did not the name appear at the end of the epistle, I could, for the style, have mistaken it for the composition of another and a clearer and a more active letter-writer. As it is, the transmutation is the most extraordinary instance of the powers of education that there is upon record; and unless it were impossible to imagine such a thing, one might be induced to suppose some kind patron had nobly condescended to play the assistant.

I have the honour to be, &c.

TETANUS SUCCESSFULLY TREATED WITH TOBACCO.

By Mr. THOMAS TWISTON DAVIES.

SHOULD you deem the following case worthy of insertion in your Periodical, it is at your service.

Feb. 22, 1846, I was called upon to attend a light cart-horse, aged five, and in good condition. From the history of the case, it appeared that tetanic symptoms had existed for eight days previously, and, from his having been docked about three weeks before, I concluded it to be a case of traumatic tetanus. All the muscles of his body were in a state of great tetanic rigidity, with the exception of the masseter and temporal muscles; their comparative freedom from spasm allowing the introduction of a small ball upon the point of a stick into his mouth. I excised the extreme cautal vertebra, bled him ad syncopem, exhibited an aloetic drench, and blistered the spine.

23*d.*—Pulse normal, breathing quieted. Let him have gum opii ʒiij, gum camphor ʒij, aquæ Oss. bis die. Enema tabaci omni vespere.

24*th.*—Bowels freely acted upon by the aloes. Pulse 56, rather full—breathing disturbed—tetanic rigidity in statu quo. V.S. ad syncopem. Gum opii ʒiv, gum camph. ʒii, aquæ Oss. Continue enemata.

This treatment was continued until March 1st, the tetanic rigidity continuing undiminished, when I determined upon trying the effect of the tobacco given in substance, the enemata not producing sufficient impression on the system. Accordingly, the following was given twice a-day:—Fol. tabaci incis. ʒiij, pulv. hordei ʒj, aquæ q. s., ut fiat bolus.

After having taken three of these balls, a marked improvement was evident, and he continued progressing rapidly towards convalescence. On the 6th March the balls were discontinued, the horse being convalescent.

From the above case of traumatic tetanus successfully treated by tobacco, I would ask—Would not tobacco, hellebore, *et hoc omne genus*, be always preferable, as sedatives, to opium, in cases where it is desirable to reduce to quiet arterial action?

I am, Sir,

Very respectfully, your's, &c.

Llanrwst, 16 July, 1846.

MANUSCRIPT PAPERS OF THE LATE MR. MOORCROFT.*

On Shoeing Horses.

The intention of shoeing is to prevent such parts of the foot from being broken, or otherwise injured, as would suffer were a horse to go barefoot. The shoe has two offices to perform, viz. to preserve the hoof in its natural shape, and to support a great part of the weight of the animal.

It has been proved, by long experience, that the sensible parts within the hoof do not suffer if the crust or wall alone have a proper bearing on the shoe; but that if the horny or outer sole bear against the shoe in any considerable degree, the fleshy or inner sole being pinched betwixt the iron and the horny sole below and the bone of the foot above, the horse is lamed. It is obvious, therefore, that the more of the crust that can be brought to bear flat on the shoe, the firmer the horse will stand; and the less likelihood there be of any pressure taking place between the sole and the shoe, the less chance will there be of the horse becoming lame. A shoe of the breadth of the crust alone would defend this part sufficiently as long as it would last; but as it would wear out in a few days, or even in a few hours, when the friction is considerable, it is only applicable to the purpose of racing or hunting in very soft grounds.

A perfectly flat shoe, broader than the crust, and equally thick at the inner and outer edges, would be very liable to press upon the sole, and produce lameness, unless a portion of the sole were to be removed, so as to make a hollow between it and the shoe, which would weaken the sole, and render the parts above liable to be bruised.

To give all the support the crust can receive, and at the same time to make the shoe sufficiently strong to wear a reasonable time, the upper surface of that (shoe) I think the best, is divided into two parts,—these are the *seat* and the *bevel;* the first, a perfect plane, rather narrower than the crust is in general; the other sloping inwards, and somewhat concave.

* These papers have been kindly sent to the Editors by Mr. Field.

This shoe has been long known, is recommended in the best books that have been published on farriery, and hung up as a pattern in almost all the farriers' shops in England, but has never been in general use, on account of the expense which attends the making of it. The upper surface of the shoe in common use is a continued slope from the outer to the inner edge, consequently the foot stands *in* the shoe instead of *upon* it. The external edge of the crust only can come in contact with the shoe, and the weight of the body tends to press the foot down this inclined plane, which produces contraction of the heels, corns, and a variety of other complaints. The lower surface of the shoe I make is flat, and thus presents the largest surface for wear.

Formerly, it was a general practice to raise the heel of the shoe by knobs or caulkings; this, however, was found to throw the weight of the body too much upon the fore part of the limb, and produced many mischiefs. To remedy these, latterly it has been suggested by M. Lafosse, and others, to shoe the toe only, and let the whole of the back part of the foot bear against the ground, or to make the shoe thick at the toe and thin at the heel. This extreme brings the weight of the body too much on the back part of the limb, strains the hind tendons of the leg, and produces other inconveniences.

The shoe I recommend is equally thick at the heel as at the toe, that the tread of the foot may be in the same plane when the shoe is on as it would be without one. I am not sanguine enough to think that this kind of shoe will exempt horses from all kinds of lamenesses in their feet, but I am warranted, by experience, to say that it will diminish their frequency.

WILLIAM MOORCROFT.

LETTER I.

From Mr. Moorcroft to Captain Codrington.

Oxford Street, Nov. 12th, 1797.

Sir,—I have now fully ascertained that every perfection required in horseshoes is to be attained by my method of making them, and believe nothing more is wanted to have their superiority generally acknowledged than to procure for them a fair and extensive trial. This cannot be done without their being brought

forward on a large scale; and, in order to manufacture them so as to be able to afford them as cheap as common shoes, a greater capital must be employed than I can possibly spare from my present business. The apparatus is nearly completed, and the experiments made, so that I think £2000 would be sufficient to carry it on to the greatest advantage.

In the present scarcity of money, I do not expect that any individual would be willing to accommodate me with so large a sum on the usual terms, and have, therefore, by the advice of some of my friends, adopted a mode for raising the beforementioned sum, by applying to twenty gentlemen for the loan of £100 each, to be returned at the end of four years. For this sum I would give my note, bearing interest at 5 per cent., payable yearly.

The superiority of one thing over another can only be ascertained by experiment. I believe no one besides myself has had an opportunity of giving a fair trial to parallel-seated shoes; and I have, at the same time, witnessed the effects of thin-heeled ones, and compared them not only with the former but with those in common use. The result of my experience is, that the thin-heeled shoes are better than the common ones; but the paralled-seated shoes maintain a decided superiority over both, as they possess every advantage of the thin-heeled ones without any of their disadvantages. This, I doubt not, will in a short time be manifest to every one. For my own part, I am so convinced of its being a fact, that I would submit the parallel-seated shoe to any test; and, at present, the opinions of the first mechanical men in the kingdom are in favour of it. I do not offer this shoe to the public as an invention of my own, or as by any means a new one.

I have seen a pattern shoe on this principle, which was made forty years ago, and I believe it was not then considered as a new one. The only reason that can be assigned for its not having been in general use has been its high price, in consequence of the labour employed in making it; and all the merit I assume is, that of having reduced to practice, by means of machinery, a principle generally acknowledged a good one.

I am, Sir, with respect,

Your very obedient and humble servant,

WILLIAM MOORCROFT.

Capt. Edw. Codrington.

Letter II.

From Mr. Moorcroft to Captain Codrington.

Oxford Street, Jan. 23, 1804.

Dear Sir,—From the account you have given of the accident in your mare's foot, I fear there is some danger of the crack remaining, and constituting what in term of farriery is called a false quarter. To prevent this, you must do all in your power to promote an *even* growth of new horn from the coronet. If by the over-reach any portion of this (the coronet) quite through the skin shall have been destroyed, you must always count upon an irregular growth of horn, and all your endeavours to the contrary will prove of no avail. I will lay you down briefly some general principles for your guidance in this business, although, in fact, you have paid so much attention to affairs of this nature, that I think you do not stand in need of my assistance. The first point is to take away the edges of the crack till there is no hollow left; but *no blood must be drawn.* Then you must apply some tow, firmly rolled and dipped in the ointment you spoke of, upon the pared surface, and tie it on with two or three turns of tape. The pressure will prevent any *rising* from within the foot, should you be under the necessity of cutting the wall, and can do no harm. Put on a bar-shoe, *lying off* the lower part of the crust immediately below the crack. In your next, pray sketch the profile of the foot, with the direction and extent of the crack.

I must immediately leave town for Peterborough; and as I wish to write particularly on your new case, I beg you to suspend any particular treatment till I write again, which will be immediately on my return.

I am, dear Sir,
Respectfully and obediently yours,
William Moorcroft.

*** I do not know Fozard's horse,—only just saw him to-day. The ointment will be sent to-day.

Letter III.

From Mr. Moorcroft to Captain Codrington.

Oxford Street, Jan. 27, 1804.

Dear Sir,—The mode of treatment you have adopted with regard to the crack is as judicious as can be imagined. The only alteration that I would suggest is, that I would recommend a thin firing-iron to be drawn over the hoof on the upper part that is near the coronet, at the distance of about a line from the hair, and very superficial there, but a little deeper as the horn becomes thicker, and about a quarter of an inch distance apart, taking care, at the same time, that you do not penetrate too deep, in which case you would do much mischief, but a gentle stimulus would hasten the formation of new horn. Now, with regard to your other case. My reason for introducing this subject is, that I see you consider the horse given to you as decidedly lame from contraction, and therefore attempt to cure him. I have some doubt as to whether it may not be a complicated case:—I will explain.

Lameness from contraction alone is generally, with proper means and time, curable; but it often happens that lameness is coupled with contraction, where the contraction is only an accidental or aggravating and not a primary or essential cause: for instance, a horse in a down-leap, or in a violent start on the road, pitches with the middle and point of his frog on a pointed stone, or clod of frozen earth; he generally suffers at the time more or less, sometimes but little. However, I will put the case strongly—he is very lame; the lameness, although it may gradually diminish, does not go away altogether—contraction, from favouring that foot, takes place. It has been a favourite doctrine, that, wherever contraction and lameness exist together, the removal of the contraction will produce a removal of the lameness. I have seen very many instances of the contrary: it is true, the removal of the contraction has removed as much of the lameness as depended upon that; and in proportion as it was great or little, it had more or less influence in increasing the lameness; but, in reasoning alone, you will observe that the removal of one of the effects of a cause is not likely

to remove more than the inconvenience immediately resulting from such effect. Now, in lameness coupled with contraction, great experience and habits of observation are necessary to make out whether the lameness arises from contraction, or whether the contraction itself does not follow some lameness in the foot. I will help you to the criteria which assist me in judging in such cases. When contraction produces lameness, it generally happens that the lameness has come on by degrees; that the horse has gone, on first quitting the stable, a little cripply, and sound after being out for a time. Again, in such case the contraction is equal or nearly equal in both feet. It is only in very inveterate cases of pure contraction that the horse puts his feet much forward in the stable. Contraction may be connected with corns, but this is made out by cutting into the angle of the heels. Now, when injury has been sustained in the coffin-joint, as in the instance before alluded to, happening from the violent pitching of the limb on a pointed and hard substance, favouring the foot occurs before any contraction is observable. The history of the case may here be of some service. When a horse suffers much from a coffin-joint lameness in one foot, it frequently happens that he becomes lame likewise on the other foot, from bearing too much of his weight on it. Many a horse is brought to me with an enlarged fetlock joint on one foreleg, for which the owner thinks he requires treatment, when, in fact, the enlargement is only owing to the cause just mentioned; but by this state of affairs continuing, in process of time both feet become diseased, and the horse is incurable. Your case has features in it, which, from your statement, appear awkward; and I have put you to the expense of this long letter, in order that you may form some opinion whether your horse is lame from pure contraction, or from contraction connected with deep-seated injury of the foot. The information I have endeavoured to convey, you may, perhaps, not thank me for; however, if I had understood completely the facts heretofore stated many years ago, I should have saved myself much disappointment, and my employers much expense.

If, after looking narrowly into your horse's feet, you think that a statement to me would in any degree be useful, you know that

I shall always feel happy in contributing in any way, to shew the sentiments I have of the numerous obligations I have received at your hands, and with which

I have the honour to be,
Dear Sir,
Respectfully and obediently yours,
WILLIAM MOORCROFT.

Capt. Codrington.

*** My letter has grown to such a length as to put you to a double expense, and unless I wait till to-morrow I cannot get a frank.

LETTER IV.

From Mr. Moorcroft to Edward Morant Gale, Esq.

Oxford Street, June 24th.

Dear Sir,—Brilliant's head shall be treated in the way you wish, but this trial is not a fair one, as the inflammation is now leaving the left eye. Many years ago, I tried the plan of reduced temperature to a considerable extent. In the case of a horse * * * * belonging to Sir H. Fetherston, it produced a very speedy and permanent cure of a most violent sprain of the fetlock joint (occasioned) by the leg being entangled in a rabbit hole. The means employed were pounded ice, continually renewed as it melted. This, I conceive, is twelve years ago, and I then bathed the head frequently, both as means of cure and as prevention of relapse, in eye cases, and also in inflammations of the brain. In 1795, I was thrown from my horse to a great distance upon a road almost as hard as stone, and fell upon the projecting part of the thigh. It was not known whether there was fracture of the hip-joint. Many of my medical friends were so kind as to call in, but, not having been eased from excruciating pain, I had recourse to an extraordinary application of camphor, which relieved me in a few hours. I reduced the excessive swelling of the thigh very speedily, by covering it with spirits of wine, and causing a man to blow upon it with a pair of bellows. My plan was much repro-

bated, and I was menaced by my surgical acquaintance with a rheumatism about the joint. Indeed, it required much confidence to persist in my plan under the severe quizzing I daily experienced. However, I got well, and have never had the slightest rheumatic affection in the parts since. I tried it in inflammations of the brain, but it did no good, and, like all plans I know, though applicable in some instances, it will not do in all. In some local affections unconnected with the system it is advantageous; and, in gout, it has been beneficial in preventing violent attacks for many years, but it has more than once proved fatal.

WILLIAM MOORCROFT.

ON THE GENERAL CHARACTER OF DISEASE, AND THE CHANGES WHICH HAVE OCCURRED THEREIN.

By W. ARTHUR CHERRY, *V.S.*

THE following observations on the change which has taken place in the characters of disease in general have more particularly engaged my attention, since of late there has been so much desire to claim an entirely new and more successful mode of treatment, as well as the assumption of its being founded on a more scientific and rational basis. Without any desire to throw the slightest discredit on any of the modes of treatment pursued, or of the opinions entertained, let us inquire how far such differences arise out of, or are dependent upon the peculiar conditions which modify the laws of disease in general: or, in other words, as the character of disease has changed, so has also, as a matter of necessity, the treatment of such disease. A central point must be chosen from whence to take an equal period before and since, for the purpose of comparison. I shall take the year 1836 as the centre, therefore from 1826 to 1836 is one period, and from 1836 to 1846 the other. I will briefly state the grounds upon which I take 1836 as a centre. In the month of June in that year, the first instance of the change which has since so fully developed itself, occurred in my practice, and it was succeeded rapidly by other cases of a similar nature. Reflection upon those cases led me to the belief that a few isolated cases of anomalous character, some of which had occurred in the year before, belonged to the same class. That they were, in fact, the pioneers or forewarners of what was

to come. But I consider the year I have before stated as the proper period whence to date a general change. Strange to say, the locality in which it first shewed itself (at least that there is any record of) was on a particularly airy and healthy spot about four miles south of London—Brixton Hill—and for some time it was confined to that spot and its immediate neighbourhood. In August and Septemher it began to shew itself in London. The next point to which I can trace it was Windsor, in December. There were many isolated instances, I doubt not, of its occurrence in various places, but still not sufficient to draw particular attention to it. At the end of January 1837, and following month, it shewed itself throughout the whole of England, but few spots escaping. From June 1836 to January 1837 it was manifested amongst horses only; from the latter period, among men and horses; and, speaking in a general way, it was confined to them alone. The period of attack for cattle in general came a year and a half later.

In October 1838, I knew from good authority that in the cattle districts of the West of England, particularly Somersetshire, the epizootic was insidiously spreading itself amongst stock in general. So insidious was the outspread, that general attention was not in any way drawn to it; and, except among the reflective, no universal disease was anticipated. It, however, still went on spreading to the east, every now and then turning back upon its course to visit those spots which it skipped in its onward march. In the spring of 1839 it had advanced considerably, and reached the lower part of Wiltshire. In July, it had found its way across the county of Wilts into North Hants. During this course it did not spread itself regularly, but skipped and bounded along, always keeping the course from west to east. In July and August, it seemed to have acquired sufficient force to spread more boldly and rapidly, and in the next six months it extended nearly all over England, affecting cattle, sheep, pigs horses, men, and, indeed, all animal life, in a greater or less degree. That this change, so important in its consequences and so lasting in its effects, was not a sudden one, I think the above sketch of its progress or development will shew: that there was a something that was insidiously acting, inducing a change in the relative proportions of the solids and fluids of the body, is perfectly evident, for no stretch of fancy can suppose that a complete reversal of previously existing states could be the work of a few days—nay, even of several weeks. I am disposed to believe that it was a change going on gradually for many months, and when set up, waiting only for some local circumstance to arise in order to bring it into active development. Thus, over-exertion, bad ventilation, exposure to wet and

cold, external injuries of the most trivial nature, all proved fruitful causes for premature development: in the same way must be viewed the effect of bringing an animal already labouring under an attack into contact with those that had, as yet, not shewn any noticeable symptoms of being affected. It must not be looked at in the light of contagion from this affected animal to others apparently healthy, but simply as a mere exciting cause, the same as any other cause of a merely local nature. I propose at some future time more particularly to describe the history and characters of this wide-spreading epizootic.

I shall therefore take the following symbol as my definition of the change in general, taking the year 1836 as a centre, and 1826 and 1846 as the extremes. It will therefore stand thus:

1826 { Diseases of high Inflammatory Type, or Sthenic. } 1836 { Diseases of Low Fever Type, or Asthenic. } 1846.

It will now be necessary to shew in what this difference consists. Of the first period, the character of disease was that of high inflammatory action: the blood dark in colour, large in quantity, viscid, coagulating homogeneously, separating slowly into serum and crassamentum, the latter having the preponderance, general predisposition to plethora—perspiration thick and viscid, forming a cream-like froth. Bile formed of dark colour—post-mortem appearances shewing the preponderance of the plethoric state. All the organs full of rich blood; muscular fibre the same. General turgescence of the bloodvessels. Urine high-coloured, and rather scanty. Predisposition to deposit fat. High fever very general, the system requiring the abstraction of large quantities of blood—the treatment generally requiring to be of the boldly depletive character.

During the latter period, the characters of disease the reverse of the former: Low fever, in its various forms—serous deposits in the cellular tissue—blood thin, watery, pale in colour—muscular fibre, organs, and bloodvessels, in a similar state. Bloodletting but little requisite, and borne but very badly—the secretions partaking of the general character, being thin and copious. The treatment the opposite of the former period; stimulants imperatively requisite in the place of depletives—the *modus operandi* of remedies so modified as to be almost considered as belonging to other classes. Thus, while 10, 12, or even 16 drachms of aloes might be given, producing but a laxative effect in the one period, in the other two drachms operating powerfully cathartic. The ratio of diseases, as regards their occurrence, altered; as pneumonia, so frequent in the former period,

becomes quite secondary in the latter, pleurisy and low fever now being most predominant. Again; disease which required bold, decided treatment, recovered from it much more rapidly, and left less serious consequences, as sequelæ. The reverse the case, during the latter period: disease slow in its progress, and consequently less active; yielding less readily to treatment, and leaving more ill consequences as its results.

From these remarks it will be apparent how great is the change that has taken place. But it is a change that can only be appreciated and understood by those who have practically witnessed the prevalence of the two general conditions; hence, it is impossible to draw any thing like a comparison between them, because they were not under the same general conditions. What comparison can we make between a disease in which it was absolutely requisite to abstract eight, ten, or even twenty quarts of blood to insure recovery, and that in which a state approaching to syncope is induced by the abstraction of *two* quarts? Again; how are we to compare states so opposite, that digitalis, which so constantly acted as a sedative in the one condition, while in the other it almost as certainly acts as a diuretic? That no greater claim to more successful treatment can be asserted is also equally plain; for the average amount of deaths in the two periods I have found to be about equal, taking things generally, though it must be admitted that, in some instances a very much larger proportion of deaths has occurred during the latter than the former period. Farther, what comparison can be made between cases of which in the one period four-fifths, more or less, required the use of the lancet, while in the latter not one-tenth?

Every veterinarian of any observation, who has practised through the period I have taken, must bear out the truth of what I have advanced. And it must be distinctly borne in mind that I am not dealing with exceptions, or particular cases, but am taking a general view of the two periods, and upon the large scale, founded upon observations made in various localities, and at great distances apart. I may state, that they extended through the London district, Surrey, Hampshire, Wiltshire, Berkshire, and Somersetshire. Not only upon one animal, but on many; from man, downwards.

STATEMENT OF THE CASES OF DISEASE AMONG DOMESTICATED ANIMALS OCCURRING AT THE EDINBURGH VETERINARY COLLEGE,

From the 1st to the 30th of June, inclusive.

By Professor Dick.

Disease.	Number of Cases.			Deaths.		
	Horses.	Neat Cattle.	Dogs.	Horses.	Neat Cattle.	Dogs.
Abscess, in various parts	4	...	...	...	...	...
Anasarca	2	...	...	...	...	...
Castrations	2	...	...	...	...	...
Catarrh and Influenza	17	...	...	...	...	...
Colic	9	...	...	...	...	...
Constitutional Debility	4	...	...	...	...	...
Curb, with Lameness	1	...	...	...	...	...
Diabetes	1	...	...	...	...	...
Distemper	...	...	1	...	...	...
Diarrhœa	4	...	...	...	...	...
Dysentery	...	1	...	...	1	...
Epilepsy	...	...	1	...	...	...
Epizootic (vesicular)	...	2	...	...	...	...
Eyes, Diseases and Injuries of	...	...	1	...	...	...
Examinations as to Soundness	22	...	...	...	...	...
Feet, Wounds and Bruises of,	13	...	1	...	...	...
Canker in	1	...	...	...	...	...
Corns in	3	...	...	...	...	...
Laminitis	2	...	...	...	...	...
Navicular Disease in	5	...	...	...	...	...
Quittor in	2	...	...	...	...	...
Sandcrack	1	...	...	...	...	...
Thrush in	1	...	...	...	...	...
Fistulæ and Ulcers	4	...	1	...	...	...
Fractures of Bones	1	...	...	...	...	...
Gonorrhœa	...	...	1	...	...	...
Glanders	2	...	...	2	...	...
Grease	6	...	...	...	...	...
Hematuria	...	1	...	...	...	...
Heart, Disease of	1	...	...	...	...	...
Indigestion	1	1	2	...	...	...
Jaundice	...	...	1	...	...	...
Lameness in Elbow	1	...	...	...	...	...
Ditto in Fetlock	3	...	...	...	...	...
Ditto in Knee	4	...	...	...	...	...
Ditto in Hip	2	...	...	...	...	...
Ditto in Pastern	1	...	...	...	...	...
Ditto in Shoulder	2	...	...	...	...	...
Nasal Gleet	1	...	...	...	...	...
	123	5	9	2	1	...

Disease.	Number of Cases. Horses.	Neat Cattle.	Dogs.	Deaths. Horses.	Neat Cattle.	Dogs
Disease brought forward	123	5	9	2	1	...
Over-exertion	1	...	...	1	...	...
Phlebitis	1	...	...	...	...	...
Placenta, Retention of	...	1	...	...	...	...
Phthisis	...	1	1	...	1	1
Pleurisy, Pneumonia, and Bronchitis	11	36	1	1	25	...
Roaring	1	...	...	...	...	...
Schirrus	...	1	...	...	..	..
Staggers	8	...	...	...	...	...
Strangles	3	...	...	...	...	...
Spavin, with Lameness	5	...	...	...	...	...
Skin, Diseases of	10	...	7	...	...	...
Spine, Injury of	1	...	...	1	...	...
Sprains	10	...	...	...	...	...
Stomach, Distention of, with Food	2	...	...	1	...	...
Teeth, Diseases of	9	...	...	...	...	...
Tumours	...	1	...	...	...	...
Weed	5	...	...	...	...	...
Wounds and Bruises, except in Feet	14	...	...	...	...	...
	204	45	18	6	27	1

General Abstract.

Cases among Horses	204	Deaths among Horses	6
,, Neat Cattle	45	,, Neat Cattle..	27
,, Dogs	18	,, Dogs	1
,, Total number	267	,, Deaths	34

It will be seen that one of the cases of pleurisy among horses terminated fatally. The animal was brought here on the 20th of June, and had, according to the account of the person in charge of him, been unwell for rather more than a week, but was not placed under regular medical treatment. When he came here the usual symptoms of hydrothorax were distinctly marked: he was kept under treatment for two days, at the end of which time he died. A large quantity of serum containing flakes of lymph was found in his chest after death; the surfaces of the pleuræ were coated with lymph, and the pulmonary tissues appeared much shrunk, in consequence of their compression by the fluid contained in the cavity of the thorax.

The case of scirrhous tumour in a cow was one in which the parotid gland of the near side, together with the integument covering it, and the adjacent tissues, were involved in an enlarged and hardened mass, the gland itself being the immediate seat of disease. The size of the tumour, as a whole, was that of an ordinary

person's head; its hardness was in several places interrupted by the openings of sinuses which communicated with one another in the interior of the gland: from these openings an ill-conditioned pus was constantly flowing.

The eyeball, and its appendages on the same side, were involved in the disease, and it could not be seen unless by opening the lids, which were closed. When they were separated, a quantity of sanious fluid escaped, and the structure of the eye appeared much disorganized. The animal suffered from difficulty in respiration and deglutition, as the tumour internally pressed upon and forced down the larynx and pharynx.

Little could be done towards effecting a cure in this case, so palliative remedies were merely employed: the sinuses were injected with detergent lotions, and they were so opened up as to afford evacuation to the matter contained within. The operation of removing the tumour by the knife was proposed to the owner. He did not appear to approve of it, and still continues to keep the cow, which remains pretty much in the same condition.

The case of tumour in a cow is one which, according to the owner's account, occurred under the following circumstances:—The patient, a fine short-horned cow, shewed every indication of approaching parturition on June 21st. The size of the udder, the appearance of the external organs of generation, and the relaxation of the sacro-ischiatic ligaments, together with the presence of other conditions observed on such occasions, shewed that the full period of utero-gestation was completed.

For many hours the cow was extremely uneasy and strained considerably, yet the liqor amnii was not evacuated, nor did the membranes containing it and the fœtus make their appearance. A manual examination was made, when it was found that the os uteri had not dilated more than sufficient to admit the introduction of three fingers.

Continued and energetic attempts were made to enlarge the os uteri; and after considerable labour, and affording the animal some time to rest herself, it was so far accomplished as to render it comparatively easy, after evacuating the liquor amnii, to bring the calf into the vagina. The calf was extracted without any particular difficulty until it reached the hips, when forcible attempts were required to remove it. The placenta was taken away soon after delivery.

During the remainder of the 21st, and through the whole of the 22d, considerable abdominal pain was evinced by the cow; there was also constipation, and a limited evacuation of urine. She got a large dose of purgative medicine on the 22d, until which time the owner managed the case himself: he is an intel-

ligent person, and possesses considerable knowledge of and experience in the diseases of cattle.

Application for assistance was made here by him on the 23d, when he said that a large tumour had suddenly formed within the vagina, and further stated that the cow continued constipated, and did not pass any urine, although she was almost continually straining.

On seeing the patient, the symptoms before detailed were found to be present; there was also a small quick pulse, quick breathing, suspension of rumination, and loss of appetite; and, on applying pressure to the abdomen, considerable abdominal pain was evinced. A tumour, as the owner stated, was found in the vagina: it was elongated, being about eight inches in length, and eight in circumference, but smaller at each extremity. It was loose, except at its anterior end, which was attached about an inch and a half superiorly and anteriorly to the meatus urinarius: the tumour itself was not covered by mucous membrane, which was distinctly ruptured at that part of the vagina where the tumour was attached. No pain was evinced on pressing the tumour; the fingers could easily be passed into it, without much bleeding following: it had all the appearance of imperfectly organized lymph, and did not possess the usual characters of a polypus. As no harm seemed likely to arise from its removal, it was cut away: its presence seemed to have had some effect in preventing urination, as, after it was removed, all difficulty in passing the urine subsided. Hot fomentations were applied to the whole surface of the abdomen, and a strong dose of purgative medicine, combined with an anodyne, was administered. From the state of the pulse and apparent weakness under which the animal was suffering, blood-letting was not resorted to.

In the course of a few days the symptoms just noticed pretty nearly subsided, but the cow became affected with pleuro-pneumonia, and was destroyed. During the prevalence of pleuro-pneumonia among cattle, we have repeatedly observed that many cows have become affected with other diseases, as in the instance just stated; and, at or about the time of convalescence, pleuro-pneumonia has set in, and carried the animals off.

Among the cases of sprain was one in which the flexor tendons of the near fore-leg in a pony had been so repeatedly injured in this way, that they had become considerably thickened in substance; and what is called contraction had taken place to such an extent, that the animal walked merely on the toe and fore part of the hoof. Tenotomy was proposed to the owner, who at once consented that the animal should be operated on: this was accordingly done. On rising after the operation, the fetlock of the dis-

eased leg stood in its natural position with relation to other parts of the limb; and the case has, since the operation, which was performed three weeks ago, continued to progress favourably, so that, according to appearances, in another fortnight or three weeks at most, the animal will be fit for ordinary work.

It will be seen that the number of cases of staggers is unusually large this month; this is in consequence of the disease prevailing to such an extent as to warrant its being considered an epizootic; for, in addition to the cases for which assistance has been requested here, accounts have been received from veterinary surgeons in various parts of the country, stating that many horses, and in some places neat cattle also, have been affected with it. Having been in Haddingtonshire, Kincardineshire, and Linlithgowshire, within the last eight days, we have found the disease prevailing extensively in these counties. From the accounts received of the disease, and from what has been seen of it here, it does not seem to be fatal in its nature, provided a proper method of treatment is adopted; but, in many cases, horses affected are a considerable time in recovering perfectly. In some instances the constitution of the animal, after a few days at the first onset of the disease, appears to be little affected, and the symptoms observed are merely an unsteady and reeling gait in walking; this is more especially confined to the hind extremities. The pulse in such is rather slow and feeble, ranging from 20 to 28 per minute; the appetite is scarcely affected, but there is apparent debility. In other cases there is stupor, with a slow but fuller pulse: there is the same reeling gait in walking. The appetite is impaired, and there is a tendency to constipation. When the animal is moved or turned round, he appears in danger of falling, and in a few cases he lies down: in such instances, however, there is not the absence of the power of motion and sensation which characterise palsy, nor is the degree of coma or stupor so great as to interfere much with the functions of the organs of special sensation. There are cases, however, in which the sense of vision is much impaired, so that the finger may be made to touch the cornea before the animal becomes sensible of its approach. It may be noticed that Professor Christison, having analyzed the urine and fæces of some horses at Alloa which were affected with this disease, found that they contained a quantity of lead; and it has been ascertained that the water which they drank was conveyed a considerable distance in lead pipes. The disease, however, in other cases, could not be ascribed to such a cause.

It is difficult to offer an opinion as to what are the probable causes of the disease. It is worth observing, however, that it did not make its appearance to its present extent until after the com-

mencement of the hot weather, and it has been most prevalent among horses which have been well fed, whether in or out of the stable, and which have been exposed to the heat either in pastures or during their work. Many brewers' horses in town have been affected; and, in the country, those have more especially suffered which were out at grass. One farmer near town had three affected at the same time; they were then all out at grass, and had been so for some time. In another case, a mare that was running out with her foal was found one morning in a deep ditch, into which it was supposed she had accidentally fallen. She was got out without much difficulty, and it was discovered that she was affected with the disease under notice. In the accounts received from the country, cows are stated to have been affected in many places; but in town, where they are always housed, we have not during June had any opportunity of seeing the disease in these animals.

From the circumstances just stated, it seems at least probable that a cause of the disease may consist in the heat of the weather inducing an irregular or altered circulation of blood in the brain and nervous centres, bringing about such an alteration in the performance of their functions as to give rise to the symptoms detailed. A farther predisposing condition, in some cases, seems to consist in a plethoric habit of body.

The treatment of the disease, so far as it has come under notice here, has been hitherto successful, although in some instances recovery has been tedious. From the varieties in strength and frequency which the pulse presents, some variation of treatment has necessarily been adopted. When the pulse is full, blood-letting has been freely employed. In one case, the horse had fallen and was unable to rise. He had been bled before any message was sent here. The bleeding was ordered to be repeated, and a considerable quantity of blood was abstracted; after this he rose on his feet, and from that time continued steadily to improve. A moderate dose of purgative medicine is given in all cases, and is repeated, if occasion should require, in the course of a few days. As the pulse, even in those cases where bleeding seems at first required, soon becomes soft and feeble, recourse is had to the usual mineral and vegetable tonics, and generally with very evident advantage. A change from grass (if the animal is feeding on it) to hay with bran mashes, appears to be the best diet, although some have recovered when turned out to a poor pasture. During the earlier periods of the disease, frequent sponging of the head with cold water is of great service. In some cases there are slight twitchings of one or more of the limbs for a few days before recovery begins to take place: these seem relieved by the administration of preparations of iron; in other instances there is considerable nervousness, which

appears most relieved by a repetition of the purgative medicine, followed by tonics. The period of convalesence, on the whole, seemed to be more retarded in those animals which were bled than in those which were not; yet recovery is generally more rapid than the symptoms observed on the appearance of the disease might seem to indicate.

WILLIAM DICK.

18th July, 1846.

CRUEL PRACTICES AT THE ALFORT VETERINARY SCHOOL.

From ALFRED J. ROGERS, *M.R.C.V.S. to* W. YOUATT, *Esq.*

Dear Sir,—IN the year 1836 I visited the Veterinary School at Alfort, and can bear witness to the correctness of Mr. Murdoch's account of the barbarities there practised. I blush to think that I have not ere this made some active exertion to put a stop to them. I have applied to the Society for the prevention of Cruelty to Animals, which has a branch in Paris; but they cannot move in the matter until the second Monday in August, when their committee meets, and the subject will be brought under their notice.

In the mean time, I cannot but think that a memorial, addressed to the French government, and numerously signed by the members of our profession in England, would have due weight.

I think that I can supply a few particulars not mentioned by Mr. Murdoch.

The number of horses operated on is six, twice a-week. Sixty-four operations are performed on each horse, and four or five horses generally die before half the operations are completed; and, as it takes nearly two days to go through the list, the remaining one or two poor animals are left alive, half mangled, until the next morning, then only to be subjected to additional tortures.

All the old exploded operations are performed, as well as those now practised, which can only be regarded as a perfectly gratuitous piece of cruelty.

Amongst the operations which occur to me at this time, I recollect firing, in every part where it could, and in some parts where it could not be required; and the operation for removing the lateral cartilages, which involves tearing off the quarters of the hoof with pincers, and must be acutely painful. The operation for stone, in which a stone is put into the bladder and afterwards removed. Operations for hernia, nicking, the removal of the ears, eyes, &c.

It is almost unnecessary, I should hope, in this country, to point out the inutility of vivisections. The effect of their frequent repetition on the minds of the students may be judged of from the *sangfroid* of one who was firing a horse's nose, as he said, "for pastime." What consideration could such a brute have for the sufferings of his patient? Was he likely to give himself any additional trouble to spare or diminish them?

If any authority were necessary, I might mention the late lamented Sir Charles Bell, who, in his lectures, constantly declaimed against experiments on living animals, as being not only cruel, but leading to no useful result.

But here we have not even the excuse which may be given for experiments, namely, that they may be the means of discovering facts tending to relieve suffering and disease. The operations performed are well known, in many instances, to be useless, and could all be equally well performed on the dead subject.

Hoping that this subject will be taken up by abler hands than mine,

I remain, dear Sir,

Your's, very truly.

Knightsbridge,
July 20, 1846.

THE COUNCIL OF THE ROYAL COLLEGE OF VETERINARY SURGEONS.

Sitting of July 1, 1846.

THIS was the Quarterly Meeting held by special clause in the Charter, requiring that a meeting of the Council should be held the first Wednesday after every quarter-day.

Present—the PRESIDENT, the SECRETARY, Messrs. BRABY, F. C. CHERRY, W. ARTHUR CHERRY, ERNES, FIELD, HENDERSON, F. KING, jun., MAYHEW, J. TURNER.

Mr. F. C. Cherry wished to know whether any reply had been received through Mr. Walter of the responsibility of the Council for the liabilities of the Veterinary Committee.

The President stated that not any had as yet been received.

Mr. W. Arthur Cherry's first motion—"That consecutive re-elections of the same gentleman to fill any office, however often such consecutive re-elections may occur, are *not* to be considered precedents;"

The motion was seconded by Mr. F. C. Cherry, and after considerable discussion was lost.

The second motion of the same gentleman was also seconded by *Mr. F. C. Cherry*, and was—"Every Member of the Royal College of Veterinary Surgeons should have the privilege of being present at the sittings of the Board of Council; but not to take part in the proceedings. Each visitor to send in his name and address to the President, and which, upon admission, is to be inserted on the minutes after the names of the members of the Council;" this motion, a very important one, was received by every member of the Council with feelings of gratification, and after a long but very unanimous discussion, principally involving the distinction to be drawn between the characteristics of a "bye-law" and a "resolution"—on which much was said on both sides, the mover of the motion gave his opinion that it was not in any way intended as a "bye-law," neither was it capable of being interpreted as such. It was simply a resolution affecting the Council, and the Council only; it had nothing to do with the general body. Further, it might be requisite, from the occurrence of particular circumstances, to rescind the resolution, and it would be highly desirable to have prompt means of abating or removing an evil, which as a "bye-law" would require *three months* notice; but, as a "resolution," notice given at one meeting would enable the Council to rescind it at the next meeting. This view met with the cordial support of the meeting, and the motion was carried unanimously.

Mr. W. Arthur Cherry's third motion, "That the Letters of Dr. Knox and Mr. Mather, complaining of irregularities having taken place at the late Edinburgh Veterinary Examinations, be inquired into;" *Mr. Ernes* seconded the motion. After a few short remarks from the mover, the Secretary read the copy of minute from Dr. M'Gregor, Secretary to the Board of Examiners appointed for Scotland; and *Mr. W. Arthur Cherry* moved as an appendage to the last motion, "That the Report from Dr. M'Gregor, Secretary to the Board of Examiners at Edinburgh, be taken into consideration at the same time:" seconded by *Mr. Gabriel*. It was moved by *Mr. Braby*, and seconded by *Mr. F. C. Cherry*, that the above letters, &c., be entered on the minutes. The three motions were with little discussion carried, and a committee, consisting of Messrs. W. Arthur Cherry, Gabriel, and Mayhew, was appointed to report thereon.

Mr. F. C. Cherry moved, "That on all questions decided by division, the numbers for, against, and not voting, be respectively entered on the minutes."

Mr. Mayhew seconded the motion. After some discussion the

motion was lost, it not appearing that any good was to be expected from such motion.

A letter from four of the pupils of the Edinburgh School, asking for a special examination, was laid before the Council. It appeared that two of the applicants had been, each, thrice rejected, one had been rejected once, and the fourth had not presented himself for re-examination. It was decided that these gentlemen be written to, and informed that the expense of summoning a special board of examiners at Edinburgh was very considerable; that it had not been customary to summon such special meetings at Edinburgh, but that they were at liberty to present themselves for examination at the next Quarterly Meeting (in August) of the London Board of Examiners without any additional fees.

A pupil of the Royal Veterinary College, *Mr. Robinson*, prayed to have the time which he had already attended allowed to stand in his favour in a future examination, as, in consequence of ill health, he was obliged to leave this country, and his absence would bring him under the influence of the regulations which will come into operation in 1848, which would not affect him were he able to pursue his studies in the proper course. From the peculiar circumstances in which he was placed, and the very courteous manner in which he addressed the Council, his petition was granted.

The Secretary informed the Council that, in accordance with their direction, seven hundred circulars, soliciting subscriptions from the body of the profession, had been issued, and he stated that several had responded to the call.

The correspondence that had passed between the President and Mr. Sewell, Secretary to the Governors of the Royal Veterinary College, was then read. Mr. Sewell's last letter was considered to be very unsatisfactory—indeed, impertinent—and was only an echo of his former communication.

It was decided that another application should be made to Mr. Sewell to lay the letter of the President before his Royal Highness the Duke of Cambridge, the President of the Royal Veterinary College.

On the motion of *Mr. Braby*, the correspondence with Mr. Sewell was entered on the minutes.

Several notices of motions to amend the "bye-laws" were given by Mr. T. Walton Mayer; which, in accordance with the regulations, were suspended for three months.

The meeting then adjourned.

Sitting of July 8, 1846.

Present—the PRESIDENT, the SECRETARY, Messrs. F. C. CHERRY, W. ARTHUR CHERRY, ERNES, FIELD, HENDERSON, F. KING, jun., MAYHEW, and J. TURNER.

A letter from Mr. Walter was laid before the Council, in which he stated that the question of the propriety of the Council taking upon itself the liabilities of the Veterinary Committee was one that did not admit of doubt—they would be perfectly justified in so doing. That, as the legal adviser of the Council, he did not feel satisfied to put the Council to the expense of taking the opinion of counsel upon the question without further directions, should the Council think it necessary.

This led to considerable discussion, in which all the members joined; and as it was only the wish of the majority that the question should be fairly and properly settled, and as they only sought for a legal opinion in support of their own feelings upon the matter, they considered that Mr. Walter's opinion was sufficient for that purpose.

Mr. Mayhew objected, on the ground that, as a resolution was passed to take "*counsel's*" opinion, it ought to be done. He was, however, over-ruled, and

Mr. F. C. Cherry, seconded by *Mr. Ernes*, having proposed the following motion, "That the Council, founding its opinion on that given by Mr. Walter in the letter already entered on the minutes, adopt the financial liabilities of the Provisional Committee incurred in carrying out the trust confided to it,"

Mr. W. Arthur Cherry objected to the adoption of the motion in that form; it was not the whole fact; it ought to be stated that it was in accordance, likewise, with the wishes of the Council itself, as had been repeatedly declared. The motion was, however, carried.

The account of the solicitor, incurred during the last two years, which was extremely moderate in its amount, was directed to be discharged.

It was recommended by the Finance Committee, that an advertisement should be drawn up that those members of the profession whose addresses were not known should be informed of the wishes of the Council respecting the annual subscription.

It was moved by *Mr. F. C. Cherry*, and seconded by *Mr. Mayhew*, "That the recommendation of the Finance Committee by public advertisement to the members of the profession for subscription to the funds of the College, be not adopted at the present time."

Mr. W. Arthur Cherry moved an amendment, "That the Secretary be requested to draw up an advertisement in accordance with the circular issued June 24, calling on the profession for subscriptions to the funds of the College, and insert the same in the public journals."

Mr. Gabriel seconded the amendment.

On the one side it was contended that, as a circular had already been issued, it was only carrying out the entire measure by the insertion of an advertisement, as had been proposed. On the other, it was contended that the time was inopportune and might be productive of mischief. The majority were of this opinion, so the original motion was carried.

During the discussion of this question a great deal of time was lost by the introduction of irrelevant matter connected with the registration, and an attempt was made to mix up the two questions together.

The Report of the Committee appointed to inquire into the alleged irregularities in the late examinations at Edinburgh was laid before the Council and directed to be inserted on the minutes. A very warm discussion occurred on this Report.

Mr. F. C. Cherry denounced it as improper, indiscreet, personally violent, and drawn up from documents that were not worthy of credit.

Mr. W. Arthur Cherry, as a member of the Committee, strongly defended the Report, denying any personal feeling. The question was a simple one: they had to be guided by the regulations laid down in the Charter, from which there could be no departure; and, to ascertain how far the Charter and the regulations of the "bye-laws" had been infringed. Further, they could only deal with an "official document" as an authentic record of proceedings.

Mr. Mayhew still more strongly defended the same Report, as the charges were not made by unknown parties who were only acting upon hear-say; but the gentlemen who made them were members of the Examining Board; they were present at the proceedings, and, moreover, were known to the Council, and had been selected by the Council itself as fitting members of that same Examining Board, of the irregularities of which they complained. The Report was adopted with but one dissentient.

Mr. W. Arthur Cherry moved, that the Report of the Committee to consider the letters of Dr. Knox and Mr. Mather, as also the copy of the minute from the Secretary to the Board of Examiners appointed for Scotland, be sent to Professor Dick and Mr. Barlow, as also to Dr. Knox, Dr. M'Gregor, and Mr. Mather." The motion being seconded by *Mr. Ernes*, was carried without opposition.

Moved by *Mr. F. C. Cherry*, and seconded by *Mr. J. Turner*, "That, with the Report transmitted to Professor Dick, there be also transmitted copies of the documents upon which that document was founded, namely, a minute by Dr. M'Gregor, and letters from Dr. Knox and Mr. Mather respectively." Carried.

Mr. F. C. Cherry raised a very acrimonious discussion regarding Mr. Mather's letter, the former part of which only contained a statement of circumstances connected with a dispute between that gentleman and Professor Dick, and which Mr. Mather expected Professor Dick would have brought before the last General Meeting, but which not having been mooted by the Professor at that time, therefore neither the Council nor the Committee had any thing to do with such part, as the subject had not the slighest connexion with the charges of irregularity in the Examining Board, neither had it ever been laid before the Council as a matter of business. To settle the question,

Mr. W. Arthur Cherry moved, "That only that portion of Mr. Mather's letter which applies to the Board of Examiners for Scotland be copied." Seconded by *Mr Field*, and carried with only one dissentient.

The Council, at the same time that they were determined to correct any irregularity that might occur, did not wish to inflict injury on innocent parties; and *Mr. Mayhew's* motion, seconded by *Mr. Gabriel*, "That, notwithstanding the irregularity of the Examining Board of Edinburgh in permitting Messrs. Dick and Barlow to vote in the election of the Chairman, the Council resolve that the gentlemen to whom diplomas were granted by that Board shall be regarded and received as Members of the Royal College of Veterinary Surgeons," was carried unanimously.

The President laid before the Council a reply from Mr. Sewell, as unsatisfactory as ever, but couched in rather more courteous terms. But, as the object was conciliation, and to avoid all unnecessary dispute,

It was moved by *Mr. Henderson*, and seconded by *Mr. Mayhew*, "That the President wait one week for a notification from Mr. Secretary Sewell; and if one is not then received, the President be requested to write to his Royal Highness, the Duke of Cambridge, direct."

An amendment was moved by *Mr. Ernes*, that "a fortnight" be substituted for "one week;" which, on being put to the vote, was lost, and the original motion carried.

Mr. W. Arthur Cherry gave notice of a motion to take into consideration the amendment of the registry.

The sitting then terminated.

We give below copies of the letters of Dr. Knox and Mr. Mather, and the copy of minute forwarded by Dr. M'Gregor, Secretary to the Edinburgh Board of Examiners, and also the copy of the Report from the Sub-committee appointed to inquire into charges therein made.

From Dr. Knox.

Edinburgh, 29th April, 1846.

Dear Sir,—I consider it proper, under all circumstances, to report to you, for the information of the President and Council of the Royal College of Veterinary Surgeons of England, an innovation, as I consider it to be, in the mode of electing the Annual Chairman of the Board of Examinators. When elected to the chair in 1845, the examinators alone voted. On the present occasion, Mr. Dick introduced himself and Mr. Barlow, his demonstrator, *as ex officio members of the Board, and voted accordingly.*

It is not my part to offer any comment on that proceeding, which appears to me altogether irregular, and calculated to re-introduce and to maintain on that Board an influence highly injurious to the interests of the profession, an influence which the united members of the veterinary profession in England and Scotland had employed their utmost efforts to abate or remove.

I remain, dear Sir, your most obedient servant,

R. Knox.

To E. N. Gabriel, Esq.

From Mr. Mather.

* * * * * * * * *

Regarding the examinations, twenty-four gentlemen have passed—six have been rejected; *but I question the legality of the proceeding.* Are ex officio members entitled to vote for the Chairman? By their so doing I fear the interests of the profession will be lost here. They did not vote last year. The examiners were divided into three Boards, and each Board only examined one-third part of the students; viz., ten students each, and finished them all in one day at two meetings.

Can the Examining Board sign their names to the diplomas granted to all who passed, when each Board examined only a portion of the candidates? I think the whole of the students ought to pass before all the examiners, so that each examiner might be satisfied, as is done in London.

Your's truly,

Thos. Mather.

E. N. Gabriel, Esq.

Copy of Minute of the Edinburgh Examining Board.

Edinburgh, Clyde-street Hall, April 27th, 1846.

At a meeting of the Examining Board of the Royal College of Veterinary Surgeons, held this day, present Dr. Mercer, Dr. Knox, Dr. M'Gregor, and Dr. Lyon, Messrs. Williamson, Tindal, Thompson, Mather, and Rainsforth, Veterinary Surgeon to the Army, it was proposed and carried (Professor Dick and Mr. Barlow, as *ex officio* members of the Board, also voting) that the election of the President and Secretary should be annual; whereupon Dr. Mercer was elected President, and Dr. M'Gregor was elected Secretary. The

Board then resolved themselves into three Committees and proceeded with the examinations. Twenty-four candidates were passed as worthy to receive the diplomas of the College, while six were rejected.

It was unanimously resolved by the Board of Examiners that the Secretary should be instructed to write to the Council in London, intimating that they considered it but right the Scotch veterinary fee should be the same as that in London for each sitting of the Board, and that Mr. Gabriel be respectfully requested to bring their claim before the Council.

ROBERT M'GREGOR, M.D., *Secretary.*

COPY OF THE REPORT OF THE COMMITTEE APPOINTED TO CONSIDER THE LETTERS OF DR. KNOX AND MR. MATHER, TOGETHER WITH THE MINUTE FORWARDED BY DR. M'GREGOR.

In considering the letters of Dr. Knox and Mr. Mather, and the copy of the minute forwarded by Dr. M'Gregor, Secretary to the Board of Examiners appointed for Scotland, the Committee have to report thereon,

1st. That the allegations of Dr. Knox and Mr. Mather are fully borne out by the official Report of Dr. M'Gregor, the Secretary to the Board of Veterinary Examiners.

2d. That the allegation of Mr. Mather concerning the division of the Board of Examiners into three distinct Boards, is also borne out by the same official document.

3d. That both these proceedings are a departure from the rules recognized by the Royal College of Veterinary Surgeons.

4th. That the act of Professor Dick and Mr. Barlow voting as "ex officio" members of the Board of Examiners, is opposed to the express declaration of the Charter.

5th. That by interfering with the appointment of the Chairman to preside over the Board of Examiners, Professor Dick did interfere indirectly with the examinations of the pupils, and violated the intent of the Charter.

6th. That Mr. Barlow, not being a Professor or an appointed Lecturer, his assumption of the right to vote as an "ex officio" member of the Board of Examiners was a violation of the Bye-law, sect. 5, 3.

The Committee, therefore, respectfully suggest that the parties who have so offended be admonished.

The Committee would further suggest, that the circumstance of the Board of Examiners having countenanced an irregularity by attaching their names to diplomas granted to persons who had not been examined before the whole Board is much to be regretted, and, if continued, calculated to be detrimental to the best interests of the body politic.

That, to prevent the occurrence of similar irregularities, the portion of the Board acting for Scotland be requested to adopt the same mode of examination as that pursued by the London portion, and which has received the approbation of the Council.

The Committee also suggest the propriety of entering into the consideration of the remunerations of the Scotch Veterinary Board of Examiners, and that it would be highly desirable the English and Scotch Boards should be upon one and the same footing, so far as their different arrangements permit.

E. MAYHEW,
E. N. GABRIEL,
W. A. CHERRY.

LETTERS TO THE EDITORS.

To the Editors of "The Veterinarian."

Gentlemen,—WHILE a student at the Royal Veterinary College, London, my ears were often assailed, and my fears excited, by reports of the incapacity of the present Board of Examiners for the high and responsible position in which they are placed.

When told that many were altogether unfit to examine pupils—that they could not put a question in an intelligible form—that they were often rude and uncivil—what was likely to be the influence exerted but to create the most unfavourable views of those very men in whom should be reposed the highest confidence?

Nor were these reports without their natural effect. Although unwilling to believe such statements, or to suppose the profession would place its interests in such unworthy hands, yet, anxious as I was, as a pupil, to gain my admission into the body corporate, I could not keep my mind free from anxiety, lest my worst fears should be verified.

Never was man more happily disappointed. Instead of obscurity, ignorance, and rudeness, I found nothing but perspicuity, courtesy, and intelligence; the most kindly feeling towards the student, evinced by a readiness to give him all the assistance consistent with duty, and an evident anxiety so to state the questions that they should be plainly understood, whilst the questions asked, at the same time, shewed their fitness for their position; and I hesitate not to assert, that the examinations of this session afford irresistible testimony of the desire and ability of the examiners fully to carry out the object of their election.

Hoping this may, in some degree, tend to silence calumniators, to assure the timid pupil, and to clear the reputation of the misrepresented,

I remain, dear Sirs,
Your's truly,
T. P. DEXTER.

To the Editors of "The Veterinarian."

Gentlemen,—MAY I beg the favour of a small space in your valuable Journal, for a few remarks I have to make upon the gross injustice practised by the Council of the Royal College of Vete-

rinary Surgeons towards some unfortunate young men, late students of the Veterinary College (Edinburgh), by unlawfully detaining their diplomas, after having merited the same by passing the requisite examination. I am induced to do this, through seeing in your Journal of last month a report of the Meeting of the Council of the Royal College of Veterinary Surgeons, on June 3, 1846, wherein they state that the letters which they have received from certain parties "were of a most improper character, and deserve severe reprehension."

Indeed! What for simply applying to the Council for what really belongs to them? More than twelve months have elapsed since they passed their examination; but not a single diploma has been sent to either of these individuals, nor has any definite answer been given by the Council respecting what length of time they mean to detain them.

Now, gentlemen, I appeal to you, and through you to the medical public—Is there any thing worthy of reprehension, or of the stringent remarks made use of by the Council against these most injured individuals, who merely applied for their own right? for that which they have spent years of toil—to say nothing of expense—in qualifying themselves to obtain? It is not a very pleasant thing for these unfortunates, who, after having earned their laurels, are prevented from wearing them. Knowing that you have long had the welfare of the profession at heart, and dislike all treachery connected therewith, I feel assured, upon those grounds, that you will give insertion to these few remarks, as they may, probably, tend to awaken the President and Council of the Royal College of Veterinary Surgeons to a proper sense of that which they have long boasted to possess—*justice* towards their professional brethren.

Gentlemen, I remain,
Your obedient servant,
A SUBSCRIBER AND
ONE OF THE INJURED PARTY.

17 July, 1846.

MR. MAYHEW.

THE pupils of this College, and some junior members of the profession, having derived very unusual advantage from Mr. Mayhew as an anatomical teacher, resolved to present to that gentleman, on retirement from office, a token of their high and lasting esteem. Anatomical research being Mr. Mayhew's most favourite

study, a microscope was presented to aid him in carrying out his investigation of structures, a subject of vast importance, but hitherto untaught and little known at the Veterinary College. The pupils are pleased to acknowledge that they still have Mr. Mayhew's valuable instruction in a private class, conducted with his usual zeal and industry, and embracing each division of their studies. It is but justice to state, that few individuals, if any, would be successful at their examination without his instruction. No one now presumes going before the Board of Examiners who has not availed himself of that gentleman's assistance, although the examinations are not conducted more rigorously than is requisite.

The circumstance of Mr. M.'s election on the Council is an infinite source of gratification to the pupils, who had frequently requested him to become a candidate for that office. Notwithstanding their urgent solicitation, Mr. M. was unwilling to be nominated; but from the circumstances which arose out of the General Meeting, the honour was thrust upon him, and no doubt can be entertained that he will exert himself to the utmost for the advancement of the veterinary profession.

HENRY DRAPER.

Extracts from Domestic & Foreign Journals, Veterinary, Medical, Agricultural, Sporting, &c.

ON THE NOSOLOGY OF PLEURO-PNEUMONIA.

To the Editor of the "Veterinary Era."

Sir,—THE name of a thing may by many be considered to be of slight import. So long as a thing may be indefinite, it may really be of little consequence. When, however, we come to terms of science, the position is a different one, and every word employed should always convey a positive meaning. Many terms in use have been handed down from our ancestors, to which meanings are now attached very different from those which originally and by right belonged to them. These are, however, so firmly established by custom, that it would be in vain to attempt their alteration. And so long as *every one* attaches the *same* meanings, it matters but little what may be the sound of the words themselves. No excuse can be allowed for the departure from a rule of so much importance, in favour of *new* words or terms. Badly defined terms and ambiguous expressions are the fruitful cause of a large proportion of the disputes occurring in the literary or scientific portion

of the community. Every new term must be possessed of certain qualities before it can be admissible for general adoption. These qualities are *perspicuity, euphony,* and *brevity.* Without these essentials it ought not to be in any way employed. New objects or things not previously defined require oftentimes that new terms should be invented. These should, however, be as few as possible, and all old terms that are well understood ought, as far as expressiveness will allow, to be adhered to.

These remarks have been forced on my mind in the endeavour to clearly understand the term now so common, "pleuro-pneumonia." This term means, if any thing, that the substance of the lung and serous membrane lining the cavity of the chest, and covering or enclosting the lung itself, are the seats of disease. So far as the term is confined to the disease situate in these parts, it is at once expressive and correct. But it is only expressive of one form or stage of the disease. This may be frequent, but it is certainly not invariably present. Let us look at the symptoms as they are described; and what do they indicate? The indication is very simple: it is nothing more or less than a highly deranged state of function, accompanied by a general febrile state of the whole body. Every one who has had any experience in the disease must be aware that the disease will assume every variety of form, according to the peculiar idiosyncrasy of the animal attacked. It may be true that the larger part of those animals that die of this disorder are found to be affected with such a form of the disease; but many cases never shew, at any period during the attack, any appearance of the lung affection. It may be confined to the bowels, the liver, the udder, to dropsical swellings, to severe affection of the skin or extremities, or it may be confined throughout to derangement of the functions of the brain and nervous system.

The impression conveyed by the term which has unfortunately been adopted is an erroneous one. It matters not what particular organ requiring treatment peculiar to itself may be the more immediate seat of the malady; it is still called by this unhappy misnomer. For example, a cow is attacked with the peculiar eruptive disease spreading over the whole of the skin, accompanied by all the symptoms of low fever, so characteristic of the disease. Yet this is still called "pleuro-pneumonia," and the same remark will apply to any other of the many forms that such a protean disease will assume. It will now be apparent how essential it is to properly define terms. What would be said of a physician who, on being called in to a patient suffering under any of the forms of fever, should treat the disease as one affecting the lungs alone? Would not such a man be set down for a blunderer—one unfit to

exercise his art? Yet such is the course daily adopted in this cattle epidemic.

Our ancestors knew better: they gave these epidemical disorders, putting on different shapes, the generic term of "murrain." At a later period we find the terms "influenza," "epidemic fever," or "distemper." These terms were merely used to designate a generally prevalent disorder, having many characters in common, and existing only during a certain length of time. Of the different terms which have at various times been employed, the one of all others the most correct is that of "epidemic fever." It at once conveys an idea of the existence of a disease of a peculiar character, different from those that ordinarily occur.

Another point must not on any account be lost sight of in the consideration of these epidemics. They are one and all referrible to the class of fever in some one or other of its forms. Another point of importance is the law of nature, that no two diseases of a violent kind can exist at one and the same time in the same body. Therefore it follows, that, when this disease is more particularly situated in one organ, it is nearly or entirely confined to that organ. It may be generally diffused over the whole system, and so remain until some peculiar, accidental, or exciting cause, occasions it to become concentrated on one particular part. A general derangement of the whole animal economy will always be found to precede the concentration upon any one part. It may be, however, so slight as to escape the notice of the attendant, or it may be of so short a duration as to pass by unheeded. It will, therefore, appear to common observers, that a disease starts at once from apparent health into activity at a single bound. A careful observer would, however, be often able to detect latent symptoms of mischief for days previous to the direct attack; nay, in some instances it may be detectible for weeks, yet, during this time, the animals appear to be performing all their functions in a healthy manner. It is difficult to convey a knowledge of these minute points. It can only be obtained by careful observation based on true principles, combined with a correct knowledge of physiology and pathology. If our veterinarians would only turn their attention to these matters, and steadily prosecute their investigation, the subject now so difficult to be understood would be rendered clear, and the vast amount of crudities and nonsense now so current would be dissipated.

It is not intended in this communication to enter into the consideration of the disease itself. The object is to shew the importance of clearly defining the meaning of general terms, in order that all may properly understand them.

I am, Sir, your obedient servant,

WM. ARTHUR CHERRY.

The Modus Operandi of Nitre in Thoracic Inflammation

[From the British and Foreign Review.]

If the congestion of the lungs be not recent, if effusion have taken place, with morbid changes in the blood, in the capillaries and in the organs themselves, bleeding is of secondary value, and other remedies must be adopted. Nitre and tartar emetic are most generally and successfully adopted in Germany. The results of experiments shew that the action of nitre on the blood out of the body is to prevent its coagulation, to diminish the tendency of the blood vesicles to unite, and to contract the membrane of the latter. Its chemical relations to fibrin as a solvent have been already stated. When taken into the stomach, it is absorbed into the circulation, and excites both the capillaries and blood vesicles to contract. It hinders the tendency of the fibrin to coagulate, and, by rendering the tendency of the effused plasma more soluble, promotes absorption. It also renders the absorption of oxygen into the blood more active, and so facilitates the decomposition of the pseudo-plasma, and its excretion by the kidneys and skin in the form of urate of ammonia, &c.

THE VETERINARIAN, AUGUST 1, 1846.

Ne quid falsi dicere audeat, ne quid veri non audeat.—Cicero.

Through the favour of our friend, Mr. Field, we are this month enabled to present our readers with copies of some manuscript papers, curious and valuable in their eyes and ours, from being the product of the pen of a man held in Britain, in his day, in the highest estimation as a professor and promoter of veterinary science. The name of Moorcroft, though carrying with it reminiscences of love and respect everywhere among the senior members of our profession, is not, we suspect, so well known as it deserves to be by many of the juniors. They will need to be told that Mr. Moorcroft was, at the decease of Sainbel, the first Professor at the Veterinary College, appointed joint-professor with Mr. Coleman to that institution; that he was likewise the founder and original proprietor of the large horse infirmary in Oxford-street, now the property of Mr. Field; and that he resigned both these

situations to accept of a tempting offer made him by the East India Company to go to India to take the superintendence and charge of their stud department. Subsequently, we hear of him living in princely style and affluence in Hindostan, looked up to as an oracle on all horse matters; and it is not many years since some account of his death reached us, but of which we have too indistinct a recollection at this moment to trust ourselves to give our readers any particulars.

Of the five posthumous papers of this celebrated veterinarian which have fallen into our hands, all in the late Mr. Moorcroft's own, neat, regular, and legible hand-writing, four are letters; the other appears to us to have been intended for a prospectus, headed as it is "On Shoeing Horses," and containing a concise explanation of the principle and application of a new horseshoe —the *parallel-seated shoe*, as he called it—which Mr. Moorcroft warmly espoused and recommended. And as the letter of the earliest date has immediate reference to this shoe, we have placed the *prospectus* first in order.

As at the time that Mr. Coleman, on the secession of Mr. Moorcroft, came into sole possession of the professorship at the Veterinary College, the parallel-seated shoe—or *seated shoe*, as it was afterwards for shortness called—stood, on account of the celebrity of its recommender, high in public favour, the new, and now sole Professor, at once gave it his best consideration: accordingly, we find Coleman, in his lectures, annually propounding to his pupils the construction and application of the seated shoe, his views on the utility of which differing so completely as they did from those entertained by Mr. Moorcroft, will be read with interest on the present occasion. "Mr. Moorcroft," said Mr. Coleman, "recommended a shoe with a flat circle, intended to be in contact with the crust, from which it was bevelled off from the sole; and for its application directed the crust and sole to be cut down upon the same level. The first difficulty that occurs in its application is the nicety required in fitting it to the crust; since the crust not only varies in thickness in different horses, but at different parts of the same hoof. It is thicker at the anterior part than at the heels, and thicker at the outside than on the inside quarter; and in different horses (in these respects,) affording an endless variety. But, admitting that the crust was uniformly of the same thickness in different hoofs, only observe what the effect must be of paring the hoof as is recommended. Long before the shoe is worn out the hoof will have grown at top and become in consequence expanded at bottom; so that at the expiration of a fortnight or three weeks, instead of the crust be-

ing of the same dimensions as the shoe, it will have become a size larger, and the part of shoe which was (when put on) opposite to its (the crust's) outer edge, will be opposed to the sole. What, then, becomes of the principle? Why, it becomes altogether subverted. Corns will be produced. And this will not only happen now and then, but must continually take place. The (seated) shoe will not even answer for a dead hoof. The (seated) shoe once fitted this hoof (I hold in my hand); but, since contraction of the hoof has taken place (from drought) it no longer does so. But, independently of all this, the practice (of such shoeing) is erroneous; any man of common sense would say, when he found you were making that flat which Nature had formed concave, essaying most absurdly to improve upon natural formation, "seeing that Nature has thus constructed the hoof, we have nothing more to do than to prepare it in the same manner." All the labour (of manufacture), therefore, bestowed upon this shoe is lost. It is true, that if the foot be properly pared out, such a shoe will do no harm; neither will it do any good, be it placed the wrong or the right side upwards. For, in this case, when the hoof comes to expand, the sole being concave and the crust projecting, the shoe can never touch the former; but the instant you reduce these parts to a flat surface, I defy the art of man to make a shoe that will not in time press upon the sole*."

At a very late period we arrest our publication to announce to the profession that faction is again rife—that now a change of Ministry has thrown other influence into power, another attempt is being made to overturn, destroy, or alter that which the majority have adopted, and are satisfied with—the present Charter.

Space will not permit us to enter into any comments upon this important subject; but at the same time we most confidently predict that, let the factious, the self-interested, or the dissatisfied do their utmost, provided we are united, true to ourselves, and at the same time firmly courteous, all their efforts will prove futile, and ultimately end in disgraceful defeat; disgraceful, because undertaken without justice, based on self-interested or erroneous views, and carried on without good faith.

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* Coleman's Lectures on the Veterinary Art.

The reports of the Sittings of the Council of the Veterinary Profession will be read with interest. The passing of Mr. W. Arthur Cherry's motion, that *every member of our Royal College have the privilege of being present during the discussions of the Council,* is one we feel assured that will give complete satisfaction to the profession at large. There could be—there ever has been—but one feeling prevalent among the members of Council on the question:—it was, and has all along been, their wish, their earnest desire, that their words and works should become universally known. At the same time there was no occasion to express this in their by-laws; indeed, such would not have been correct: it comes forth as an act of Council granting a favour or privilege to the members of the general body to which they (the latter) possess no claim or right through virtue of their charter.

We congratulate our worthy Secretary on having managed to put into circulation seven hundred solicitations for subscriptions. We must beg and entreat those receiving them to remember that the affairs of the veterinary profession, no more than those of the nation, can be conducted without supplies. Were the House of Commons to withhold its pecuniary grants, the wheels of government must come to a stand-still; neither can the wheels of our professional machinery keep on turning unless the body supply the wherewithal. The Members of Council are doing their work assiduously, and without remuneration; the Committees without pay have enacted their part; the President, at great sacrifice of time and at no little cost of mental and corporal exertion, has likewise gratuitously done his; will, then, the members of the profession refuse an annual tribute? Will they see their chartered body wither for want of aliment? We will answer for them—THEY WILL NOT.

We have received at a late hour the Finance Report of the Royal College of Veterinary Surgeons, by which it appears that there is a considerable deficit against the College; but we hope that the profession at large will not let this remain as a reproach upon them; but that they are willing to defray expenses incurred in carrying out that which is for the mutual benefit of every member of the body corporate.

Finance Report of the Royal College of Veterinary Surgeons, to May 4, 1846.

Receipts.	£	s.	d.
1844.			
Contributions received from the body of the Profession, from 1841 to Christmas 1844..	617	7	6
By Loan	739	10	0
Examination Fees	197	8	0
Copies of Charter	0	14	0
1845.			
Contributions	75	3	6
Examination Fees	131	5	0
1846.			
Examination Fees	81	18	0
	£1843	6	0

Expenditure.	£	s.	d.
1844.			
Fees for Charter of Incorporation	553	0	2
Fees at the Herald's Office	78	8	6
Solicitor's Account	96	18	9
Engraving the Seal	15	0	6
Advertisements	29	3	6
Printing	41	17	6
Books	8	19	0
Rooms for General Meeting, Councils, and Committees..	22	18	8
Deputation to Edinburgh	34	15	0
Fees to the Board of Examiners	68	3	0
Postages	7	11	6
1845.			
Rooms for General Meeting, Councils, and Committees..	15	15	0
Engraving Diplomas	15	18	0
Stamping ditto	8	5	0
Printing	24	13	3
Advertisements	10	11	6
Expences of Secretary to Edinburgh	12	0	0
Fees to the Board of Examiners.	138	12	0
Allowance to Secretary	30	0	0
Stationery, Stamps, Envelopes, and Postages	12	9	2
One-third of the Loan repaid, with interest to Feb. 16	283	9	6
1846.			
Advertisements	5	12	4
Printing	3	7	6
Stationery, Stamps, Envelopes, and Postages	2	11	5
Fees to the Board of Examiners	50	0	0
Council and Committee Rooms	3	13	0
Printing & Stamping Diplomas	4	4	0
	1577	17	9
Balance in hand	265	8	3
	£1843	6	0

LIABILITIES.

	£	s.	d.
By two-thirds of Loan remaining unpaid, and Interest thereon to Feb. 16	517	13	0
Balance in hand as above	265	8	3
Deficit	£252	4	9

THE

VETERINARIAN.

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LAMENESS.

By WILLIAM PERCIVALL, *M.R.C.S.*

TREATMENT OF SPAVIN.

[Continued from p. 425.]

THE disease presented to the mind of the veterinary practitioner of the present day for treatment is not the disease which the farrier of former time had in view: they both go by the appellation of "spavin," it is true; and to the simple circumstance of the name remaining unaltered, it would appear, is in a great measure owing the continuance of the old remedies for spavin, as well in their commendable as in their objectionable forms. And when once the judgment as become wedded to any particular line of treatment, we all know how difficult we find it to lay aside old and favourite for new and untried remedies, or even to apply the old ones in any way different from that in which we have been taught, or from what our own practice appears to have confirmed as the best. If the same plan of treatment which those before us practised for *exostosis*, or bone spavin, be precisely that which is the best adapted for ulcerative disease of the synovial membrane and articular cartilages, then are we borne out in firing and blistering for spavin at the present day, the same as was done formerly; nor have we any reason to hope for better success than attended the practice of those who have gone before us, which, as we find from their writings, was sorry indeed. What does Solleysel say?—What Gibson?

And do we not at the present day, in too many instances, blister and fire, and fire and blister, scoring and torturing our patients in the severest manner, and yet, after all, without conferring any relief?—nay, on occasions, rendering horses lamer than we found

them!—disappointing our employers, and vexing ourselves. In a word, our treatment has amounted to nothing but lamentable failure; to avoid which, or, at all events, to escape the incurrence of blame from such sinister results, must prove of serious import to the conscientious veterinary surgeon.

REST.—A man has but to reflect for a moment on the delicate nature of the tissue by which joints are lined, and how the surfaces of that lining are defended from rubbing, one against the other, by a glib, soft, joint oil, to feel assured that, in its inflamed or ulcered condition, motion of any kind must be hurtful. And yet, after having blistered or fired for spavin, what is the usual practice? Why, *to turn the horse out.* Suppose a man to be the subject of ulcerative disease of the hip or knee joint, what would be the directions of his surgeon, touching his walking upon or using the affected limb? On this point, I imagine, we cannot have better authority than Sir Benjamin Brodie. "When the cartilages of a joint," says Sir Benjamin*, "are ulcerated, it may well be supposed that the motion of their surfaces on each other must be favourable to the progress of ulceration. I have known some cases in which *rest alone* was sufficient to produce a cure. In all cases *the symptoms of the disease are aggravated by any considerable exercise;* and we may, therefore, conclude that the keeping of the limb in a state of *perfect quietude* is a very important, if not *the most important,* circumstance to be attended to in the treatment." Do we not keep horses standing quiet, or in confined apartments, in treating them for navicular disease? And that is but another form of ulcerative disease of joint. Setting, however, all analogy out of the question, I can positively, out of my own experience, assert, that spavined horses that are rested during treatment will derive thereby a benefit of which those that are turned out will be deprived; and, further, that I have seen cases of recent spavin relieved to a degree approaching to soundness by "rest alone."

I know private practitioners meet with difficulties in keeping lame horses up in stables, or in providing boxes for them. The stall of the invalid is wanted for his working substitute or successor. Then there is to be considered the keep of the lame and useless horse, and how much less the cost of such would be at grass or straw-yard. Still, whatever weight these considerations may have with the proprietor of the horse, the veterinarian is in duty bound to give him to understand that his lame servant will stand a very much better chance of recovery under one plan of treatment than under the other; and that, should the remedies

* In his "Pathological and Surgical Observations on the Diseases of the Joints," p. 142-3, 3d edit.

used fail in the horse that is turned out, or taking exercise, he must ascribe the failure to the lack of that quietude which is found so desirable towards the cure of spavin.

It is possible it may be argued, in opposition to what I have stated on the desirableness of rest or quietude, that spavined horses that are severely fired, and afterwards turned out, by no means so infrequently come up very much relieved, and, on occasions, in a state of soundness. All this I am ready to grant. But I would account for the fact in a way somewhat different, perhaps, from the explanation commonly given. I admit that the firing, as a most severe and enduring counter-irritant, has been productive of great benefit; at the same time we must not overlook the other effect this violent excitement of inflammation and ulceration of the skin covering the hock necessarily has had, and that is, from the soreness and pain occasioned by flexion of the joint, the compulsion on the part of the animal to refrain as much as possible from moving, at all events, from *bending*, the hock; so that, in effect, the diseased joint has in a measure been, during the turning-out, in a state of repose. Moreover, it must be remembered that the motions of flexion and extension are principally effected by the rotation of the trochlea between the tibia and the astragalus, and that the cuneiform joint is not necessarily called into action, though it cannot escape being compressed the while, and consequently, in the state of disease in which it is, injured more or less every time weight is thrown upon the lame limb. After all, however, any abstinence from motion or compression the joint may experience in the turned-out horse, is not to be compared to the state of absolute quietude it enjoys in the horse that is kept up; added to which, whatever amendment may result from the inability to flex or bear weight upon the joint so long as it continues painful, and sore, and stiff, we may expect will be again forfeited the moment he loses this pain and soreness, and regains the use of the joint. In fine, by turning out we are liable and likely to undo much, if not all, that we have taken so much pains to accomplish by the iron; and to this error in treatment I ascribe, more than to any other circumstance, the large proportionate number of failures in the cure of cases of spavin.

BLOOD-LETTING, as *locally* or *topically* as it can be practised, I regard as a valuable remedy in all cases where the disease is *recent* and *inflammatory* in its character. Were spavined horses brought to us as soon as they manifested lameness, instead of being worked on until they become too lame to continue at work—as is but too frequently the case—success would attend many of those curative efforts which now end in lamentable failure. Topical blood-letting would not be then, as it is but too generally now-a-

days, cast aside as an inefficacious remedy. There are three places from which we may draw blood with considerable effect on disease in the hock:—one is the saphena vein in the thigh; another, one of the superficial veins upon the hock; a third, the artery at the toe of the foot. Of these I prefer the first, taking care to open the vein as low as I conveniently can, and thereby to render the evacuation as topical as is possible. We cannot always be certain of obtaining the quantity we may desire, from the superficial veins running over the side of the hock; and as most of these veins communicate with the saphena, there seems no great good in preferring them. The toe of the foot is too far distant from the seat of disease.

It appears strange that early and copious abstractions of blood should be so universally recommended and practised for disease of the navicular joint; and yet for the disease of the hock-joint—which is of an analogous nature to it—nothing should be thought of but firing and blistering. Neither theory nor experience will countenance inconsistency like this. Under the same circumstances there is as good cause for bleeding in *articular* spavin as in navicular joint disease; the reason why it is not "found to answer" being, that it is not put into practice under similar circumstances. A horse falls lame in one of his *fore* limbs, and the lameness becomes too evident to escape observation; and his master, either from sympathy or shame, at once desists riding the animal, and takes measures for his restoration. But a horse may fall lame in one of his *hind* limbs, and his owner not discover it, at all events not for some time, or may mistake it for "cramp," or some "peculiar gait" the animal has acquired; and even should he detect the lameness, still, as it does not amount to enough to incapacitate the horse from working, and as the "stiffness" he manifests when first brought out of the stable "goes off" through exercise, he is continued at work until he evinces absolute incapability or lameness to a degree to excite shame, if not compassion, in the breast of his master. For these reasons we do not have spavined horses brought to us for treatment at so early a period of the disease as other cases of lameness, or at nearly so early a stage of their disease as, to render their cure probable or hopeful, we ought to receive them at. I shall now relate a couple of cases—out of several I could produce—to shew the amount and kind of relief we may hope to afford in recent inflammatory spavin by blood-letting.

Case I.—*Jan.* 3, 1839, D 4, a five-year-old grey mare, never known to have been lame previously, while at work in the riding-school, suddenly manifested lameness in one hind leg. She was immediately brought out to be shewn to me. I found her quite

lame in the near hind leg, exhibiting a prominent spavin upon the near hock. I ordered her to have a high-heeled shoe nailed upon the foot of the lame limb, to lose sixteen pints of blood from the saphena vein, immediately above the hock, to take a brisk dose of cathartic medicine, and to be kept standing quite quiet, tied up in her stall.

10*th.*—Saw her trot out for the first time. She runs almost sound. Apply a sweating blister to the exostosis.

18*th.*—Scarcely any lameness remaining.

26*th.*—Sound. She was nevertheless kept in a state of quietude for a month longer, and then sent to work.

In March following, she failed in the other (the off) hind leg, but without any appearance of bone spavin. Notwithstanding the absence of all tumour, however, regarding her case still as one of spavin, I treated her off hock the same as I had before treated the near, and the result proved equally satisfactory. She became sound in about the same period of time.

She afterwards continued at her duty until the 14th January of the following year, on which day she was brought to me again, now lame in *both* her hocks, and from bone spavins equally demonstrable in them both. She was, after due preparative treatment, fired *deeply* in both hocks. In June of the same year she was cast and sold, in consequence of going with "stiff" hocks—wanting that flexion in them requisite for efficient cavalry action.

CASE II.—F 16, a black gelding, eight years old, was admitted on the 19th December, 1839, for "lameness in the off hind-leg," the cause of which was not apparent. Blood was drawn from the saphena vein, a high-heeled shoe put on, fomentations used to the hock, and a strong dose of physic given.

Jan. 10*th*, 1840.—Three weeks afterwards the horse was discharged for duty, "sound."

17*th.*—Returned to the infirmary stables on account of relapse of lameness in the same limb, the cause now being, evidently enough, *spavin.* Local blood-letting, fomentation, &c. were again practised, but this time without affording any relief.

29*th.*—The hock was blistered. After a month's rest, the blister in the interval having worked off, there was still no amendment.

March 2*d.*—The hock fired. Failing to derive benefit from which, he was, ultimately, cast and sold.

These cases shew us that good may be expected from blood-letting practised *early* in a case of spavin, but not afterwards, and thus afford additional evidence of the desirableness of submitting spavined horses at once to treatment. Veterinary practitioners, who have few or no opportunities of treating spavin in its inchoate

stage, have, perhaps, little notion of how much may be effected in the way of cure by blood-letting, the horse being the while kept at rest. It might, indeed, be argued that the rest does the good. Be this the case or not, all I can say is, that, aided by strict quietude, I have found venesection of essential service in the incipient forms of spavin lameness. At the same time I am fully of opinion that any amendment we may have obtained by such means is rendered permanent—when perhaps it would prove but temporary—by following up the blood-letting by counter-irritation. I would not counsel any person, whose spavined horse has been relieved or cured by such means as local blood-letting, and physic, and rest, to put that horse to work again until he had undergone a pretty severe course of counter-irritative treatment—in the form of blistering, or firing, or setoning, &c., as the case may seem to require.

Although recent cases of spavin are in general relievable, if not curable, by blood-letting and rest, experience has taught that others, in advanced stages of the disease, and which unfortunately constitute by a great deal the majority of the cases brought before us in private practice, rarely obtain much, if any, relief from remedies so mild and transitory in their operation. Still, when there exists any sign or indication of inflammatory action in the diseased joint—when lameness is of that painful nature, that, for the sake of mitigating the animal's suffering at least, the soothing and not the irritating plan of treatment is manifestly called for—blood-letting, with physic and fomentation, &c. ought to be had recourse to, and will prove the best preparatives for any counter-irritant treatment intended to come afterwards.

VETERINARY OBSTETRICY.

Vaginal Cystocele, or Inversion of the Bladder.

By Mr. W. A. Cartwright, *M.R.C.V.S., Whitchurch, Salop.*

[Continued from p. 141.]

Having taken into consideration the various false presentations which occur in our practice, I shall now enter upon other occasional obstructions to the extraction of the fœtus, and my present paper will be on inversion of the bladder.

Vaginal cystocele, inversion or protrusion of the bladder, is an accident of very rare occurrence, indeed; so much so, that one of our most celebrated authors, Mr. Youatt, has asserted that the bladder can never, when inverted, be returned to its natural situation.

There are several cases on record, however, and which I shall hereafter refer to, that clearly disprove such an assertion, and which ought to lead us never to despair while we are trying to effect a cure in such desperate and difficult cases. In all of them the life of our patients is in imminent danger; and even if she recovers, if the bladder is not re-inverted, she is generally a loathsome and disgusting object to all around her, as well as a burden to herself.

Cause.—Most of those cases occur during the act of parturition, and at a time when the animal is violently straining, whereby a part of the contents of the abdomen and uterus are forced against the bladder, and so in the end cause its inversion. It is not at all improbable but that the bladder may, in consequence of the pressure it occasionally receives, be in a spasmodic state, or the cervix may be dilated and relaxed at times. Now and then a rupture takes place in the vagina, as in the subjoined instance [see Youatt on Cattle, page 522].

"The following case, which happened to a skilful practitioner, may be, perhaps, a warning to others. A cow had been three days in labour, and little advance had been made. She was lying on her right side, exhausted, every now and then lowing mournfully, and making violent efforts to expel the fœtus. A round, fibrous, white tumour presented itself; it was evidently distended with some fluid, fluctuation being detectible on the slightest touch. Not dreaming that it could be any thing beside the membranous bag that contained the natural uterine fluid, he punctured it, and he was astonished when that which ran out had the colour and smell of urine. It was the bladder which had protruded through a rent in the vagina, and which he might have recognised by its smaller bulk and firmer texture, and by the ease with which the neck would have been discovered on a slight examination. The calf was saved—the mother might probably have been saved, too—the internal laceration might have been healed—and the practitioner would have escaped the consciousness of having made a somewhat disgraceful blunder."

In the cow and mare the urethra is short, straight, and capacious, sufficiently so to allow, under certain circumstances, of the inversion of the bladder.

Symptoms.—Protruding either through the vulval opening, or immediately within the labia, will be discovered a tumour of a pyriform shape, varying at different periods, according to the length of time the accident has happened, both in size and colour: sometimes it will be seen hanging down from within the vagina by a sort of peduncle, for at least eight or nine inches, and will contain two or three pints of serum, no doubt secreted by the peritoneum,

and forced into the bladder while inverted. At times, the protruded part will be nothing more than a thickening of the bladder, produced by strangulation and inflammation, and it will be changed in aspect from its ordinary colour to that of an inflamed surface, and, if it has existed long, to a darker colour. Sometimes it will become gangrenous, and will slough; its surface at other times appears chopped and rugose, and on occasions pints of blood have been known to ooze from its exposed mucous surface. Should there exist any doubt concerning the nature of the parts protruding, we should try to find the *meatus urinarius:* if we cannot discover that, the circumstance should make us very suspicious how we act. In such cases we should ascertain the attachment and situation of the protrusion, and learn whether it is contiguous with the vagina, which will at once point out to us its real nature. Another important point in our diagnosis should be that of discovering, if possible, the nipple-like shape of the orifices of the ureters, to be found at the superior surface of the upper end of the suspended part, and generally pretty near together; and, by careful observations, urine will probably be seen oozing from them, and on occasions, during the throes of the animal, jets of it may be seen forced out.

I think, whenever this takes place, that the *ligamenta lata* or broad ligaments of the bladder, must be either ruptured or put very much on the stretch: were they not ruptured, the inverted bladder would not be able to protrude out of the vagina to so great a distance.

Treatment.—Provided we are called to the case at an early period, and before a thickening of the parietes of the bladder and of the sphincter has taken place, we, most probably, may succeed. We should, with the left hand, press gently upon the sides, and with the right hand the fundus of the bladder, until we feel it gradually receding from us; after which we may carefully introduce a pessary or catheter, so as fairly to force it into its natural situation. If there should be violent straining at the time we are employing the taxis, we had better desist for a time until we have abstracted four or five quarts of blood, or given a dose of opium, in solution, to allay any irritation or spasm. But, if we cannot succeed in this way, I think a far more preferable mode will be to get a stick with a round blunt point that will pass through the sphincter, and force it against the extreme protruded fundus. A very excellent instrument would be a female catheter, such as is used for the cow or horse, as it would have the necessary curve. In thus trying to re-invert it we may use considerable force without rupturing it, though, of course, we must be cautious in our pressure. If we cannot succeed in this way we have another method, but which is rather an uncertain and dangerous one, and one rather difficult, I

should imagine, to perform on a living subject. I have tried it on a dead one with success. It is this:—first of all, draw the protruded viscus out as far as possible, and then introduce the hand along the tumour up towards where the meatus lies, where we shall find a sort of stricture and a small pouch, into which we may introduce the finger by curving it downwards. On examining the vagina, there will be found, a little posteriorly to the meatus, what Blaine calls "a membranous vascular fold," which was mistaken by Hunter for the hymen, and which encircles the vagina for the purpose of preventing the urine from entering it. In a preparation lying on the table before me, it is about three-eighths of an inch in diameter, and projects all round within the vagina. It is by means of pulling at the inverted bladder that this membrane forms the pouch above alluded to, and through which we should try to make a longitudinal incision, so as to divide the upper part of the sphincter and neck of the bladder; in which, if we succeed, we may readily, from experiments I have instituted, reduce the viscus. At the place where I propose to make the incision there are very few muscular fibres to be seen entering, to form the sphincter, but at the under surface they are distinctly to be seen, and have the appearance of being a continuation of those of the sphincter vaginæ.

If all these methods should not succeed, we have no other alternative but to pass a ligature around the protruding viscus, posteriorly to the orifices of the ureters. Now, it is to be observed, that the ureters enter the substance of the neck of the bladder obliquely towards its sides, but their orifices are to be seen, when the bladder is inverted and the cow or mare is standing up, at the upper and superior surface of the viscus, about half an inch apart. To detect them, we must draw the bladder sufficiently down, so that we may be able to inspect the parts. Where they enter, the inner membrane (now the ureter) will have a soft and jelly-like protuberant appearance, in the middle of which will be detected two very small openings of a nipple-like shape. To be certain that we have hit upon them, we may introduce a probe, and pass it downwards, towards the suspended fundus.

Having discovered the orifice of the ureters, and passed a ligature around the neck of the bladder below them, we have nothing more to do than occasionally tighten it, so as to effect complete strangulation and sloughing of the body of the bladder; though, as soon as we find it dead, we may, to save time, cut it away with a scalpel. We should, also, after having applied the ligature, puncture the distended fundus, since its great weight may cause a dragging and inflammation about its cervix, or may force the ligature over the mouths of the ureters, which would occasion the

death of the animal. After the separation has taken place, the remaining portion will contract within the vagina, and the cavity be closed up by the vulva. The urine, generally, will ever afterwards continue to dribble away from the ureters, and run down the thighs, excoriating them; though, in other cases, the fluid will accumulate within the vulva, and be from time to time ejected in large quantities.

To obviate this unpleasant result, and which I have also seen from a rupture of the vesical sphincter from foaling, M. Canu sen., invented a little projecting spout of tin, made with a brass wire attached to it, by means of which it might be fastened to the vulva. He fitted it on the following morning below the inferior commissure of the lips of the vulva, the two extremities of the wire extending on either side of the opening into the vulva, and being retained by two cross pieces, by which it was fastened to the crupper: her tail being shortened to prevent her disarranging this simple machinery. By this means the urine was thrown beyond the hocks, a few emollient lotions healing the excoriations that had been made. The mare was put to work six weeks after the accident, and in three or four weeks after this she was sold at a fair.

I will now give an abstract of what has been recorded, which I think will be the means of drawing the attention of veterinary accoucheurs, for the future, more to the subject.

The first case I find recorded is by M. Canu, sen., and is as follows (*see* VETERINARIAN, vol. ix, p. 36.):—

I was requested to see a mare labouring under difficult parturition. About half an hour before I arrived the people had assisted her, and the foal had been born. It came in its natural position, and the birth was effected without much difficulty. She was covered with sweat, and evidently in great pain, her throes being continual and violent. A portion of some membranous substance which hung from the vulva made me suspect an inversion of the uterus or of the vagina. The proprietor said that he had been long attempting to return this protruded substance, but was unable. I examined it with care, but could not satisfy myself to what organ it belonged. At length I caused the mare to be raised, which was not effected without considerable difficulty, for she was very weak. She made repeated efforts to void her urine, and, from time to time, it spirted out to a considerable distance. I did not even then suspect inversion of the bladder; for I had not seen a case of it, nor heard it spoken of in veterinary medicine. It was red, thickened, and bloody. I thought, indeed, of inversion of the bladder, but I could not bring myself to believe that it existed in this case. At length, following the inferior surface of the vagina, I could not find the *meatus urinarius*, and the membranous substance com-

mencing there; and as the mare, after some violent efforts, ejected her urine to a considerable distance, I saw very plainly what was really the case—that it was, in fact, the bladder which I saw hanging out of the vulva. I examined it anew, and found that it had been torn at its fundus in attempts at being returned. He had used all his strength, the mare all the while struggling violently. The owner wished me to do all I could. In order to calm her pains, I took away eight or nine pounds of blood, and placed her on restricted diet. At the end of three days, the bladder was swollen and black, and the thighs excoriated by continual running of the urine. On the fourth day I consulted M. Diguet, veterinary surgeon at the depôt of Pin, and we resolved to pass a ligature round the bladder, below the orifice of the ureters, the people consenting to tighten the ligature daily. On the following day I was informed that the mare was worse, having shewn colicky pains. On examination, I found that the ligature had slipped upwards more than an inch, and had closed the orifice of the ureters, and that it was the distention of the vessels with urine that had caused the supposed colic. The bladder was of a pyramidal form, with the point uppermost, and it was difficult to keep the ligature in its place. I replaced the ligature, however, and fastened it to two pieces of wood, which passed through the bladder, lower down. Every day I tightened the ligature, until the whole mass became loosened, and which, weighing nearly six pounds, stinking almost insupportably, and now hanging by a small pedicle only, I cut away without hæmorrhage. The remaining part retreated immediately as far as the *meatus urinarius*, the lips of the vulva closed, and nothing more was to be seen. The urine continued to run from the ureters down the thighs. The method adopted to prevent the urine running down the thighs will be found mentioned when speaking of the treatment of these cases.

The next is a successful case, by M. F. Devaux (*see* THE VETERINARIAN, vol. x, p. 638), of re-inverting it:—On the 21st of April, 1820, I was desired to see a carriage mare that had aborted fifteen days previously. A tumour from nine to ten inches in diameter protruded from the vulva. The proprietor told me, that, on presenting her to the horse in order to be covered, the stallion was unable to introduce the penis into the vagina; that, on opening the labia, in order to ascertain the cause, he observed towards the inferior commissure, a tumour about the size of his fist, and that it gradually increased in size, and appeared largest when the mare was endeavouring to stale. She was often straining for this purpose, and the water ran from her in small quantities.

This tumour was of an oblong form, and occupied the inferior part of the vulva: it diminished very much towards its base, where

it assumed the form of a peduncle. Its surface was red, soft, and chapped in various places. At the base on each side was a little nipple-formed opening, whence, every five or six minutes, there escaped a white fluid, somewhat thickened, which I considered to be the urine, and these openings to be the ureters. I immediately recognized the tumour as an inversion of the bladder. When I attempted manually to examine it, the mare struggled violently, and threw herself down, and there ensued a violent distention and bruising of the tumour. It became more profoundly chapped in various places, in a direction from above downwards, and through the whole length of the tumour; and, in the course of five or six minutes, five or six pints of blood were discharged. I washed it with vinegar and water to no purpose. I then had recourse to pure vinegar, and the hemorrhage ceased.

The mare being raised, and more quiet, I proceeded to the reduction of the tumour. I caused it to be supported by an assistant, and by gently pressing on its sides and inferior extremity with my finger and hand, I succeeded in completely returning it. I continued to hold my hand firmly pressing on the base of the bladder for nearly half an hour; and the mare being quiet, and I plainly feeling the contraction of the sphincter on my arm, hoped that the bladder would retain its position without the aid of a pessary.

At length I gently withdrew my hand from the meatus urinarius, being assured that its neck contracted more and more. I ordered the head of my patient to be tied up for four hours, prescribed for her a very restricted diet, and left her. No untoward accident happened to her afterwards, and she was sold, four months subsequently, at the fair of St. Loo; after which the owner lost sight of her.

I would observe, that this reduction was accomplished much more easily than I had supposed that it would have been, and without any injury to the neck of the bladder.

It is generally supposed that, to have any chance of re-inverting the bladder, we must attempt its reduction early; but from the perusal of the foregoing case, I almost doubt this.

Now, it is well known that, after the bladder is inverted a quantity of serum is forced into it, forming a large tumour externally; and I am inclined to believe that the animal's repeated strainings, and forcing the water into the bladder, may be the great cause of dilating the neck of the bladder; indeed, in this instance, to so great an extent as to allow of the introduction of the hand; but the dilatableness of the urethra is well known in operating for stone in the bladder.

In the same volume of THE VETERINARIAN, page 639, there is

an interesting and successful case of amputation of the bladder, by M. Lecoq, well worth a re-perusal.

Mr. Edward Neale, of Barbage, has given us an account of a similar case (*vide* THE VETERINARIAN, vol. xi, p. 410) in a sow, and where spontaneous amputation took place, and she got well and became fat.

Mr. Charlot (*see* THE VETERINARIAN, vol. xiii, p. 126,) was obliged to perform the Cæsarian operation on a cow that for three days had been cruelly suffering, and unable to expel the fœtus in consequence of a vaginal cystocele, which presented itself in the form of a round tumour, tense and fluctuating. There was, in fact, a laceration in the inferior portion of the vagina, through which the bladder had protruded itself. This was discovered after death, for the cow died soon after delivery. The calf survived.

In the *Transactions of the Veterinary Medical Association*, vol. i, page 57, there is a case recorded by Mr. W. Baker, of Sudbury, successfully treated by his brother, Mr. S. S. Baker, of Monk's Ely, of inversion of the bladder of a mare whilst in the act of foaling. In this instance it was replaced three times within two hours. The urethra must have been freely dilated, as there was little difficulty in returning it each time.

From the foregoing cases, it will appear that two mares have had inversion of the bladder (one of them three times within two hours), and that both of them did well; and M. Devaux observes, "that the reduction was accomplished much more easily than he had supposed it would have been, and without injuring the neck of the bladder."

Mr. Baker also says, that he returned his without much difficulty.

In the two other cases, the practitioners were unable to return them in consequence of great thickening of the coats, and engorgement about their sphincters, and were, on that account, obliged to remove them by ligature. In another case—a sow—it took place with equally good effect by the ligature.

It follows, therefore, from these cases, that the bladder is not so sensitive as some have imagined, and that it is not necessary to life, since its amputation produces no other derangement in the functions of the animal than incontinence of urine.

In all cases of parturition, we should be careful to ascertain that there is no inversion of the bladder from a rupture in the vagina or otherwise, as there have been instances in extracting the fœtus wherein it has been ruptured. It has also been mistaken for the "water bag," and so, has been punctured.

Amputation of the bladder will be more practicable in the cow and sow, as they would not be exposed to view so much, and, no doubt, would get fat.

FORWARD MOUTHS FOR THEIR AGES.

By J. HORSBURGH, *M.R.C.V.S., Dalkeith.*

MEDICAL men and medical works teach us that Nature has rules that we by artificial means may alter a little; but she will not deviate from her regular course to any great extent. With regard to the age of the horse as indicated by the teeth, we are taught (and with the exception of a variation of, perhaps, a month or two) that horses shed the incisor teeth at two and a half, three and a half, and four and a half years old, respectively; and that at four and a half, or before five years of age, the horse has what is termed a "full mouth;" consequently, every horse with a full mouth must be five years old.

Following this as an unvarying rule, many disputes have arisen, and judges following these rules, said to be unvarying, must necessarily have been sometimes in error. My motive for writing you on this subject is to shew that there are exceptions, as the following cases will satisfactorily prove.

A chestnut filly, by Canteen, was bought at a sale of part of His Grace the Duke of Buccleugh's stud, in 1838, then a yearling, by Wm. Gray, Esq., Dalhousie Mains. In the spring of the following year, or when she was said to be two years old, Mr. Gray was surprised, on going into the stable, to find she had a fine foal. He consulted me as to whether it might do her an injury to suckle it, or whether he should destroy it; but, as the filly seemed very fond of it, I advised him to give her an extra allowance of food, and suffer her to rear it, which was done, the mother being sold to the Duke of Buccleugh's hunt. Mr. G. now uses the produce of the filly as a riding mare.

When the abovementioned filly was said to be four years old, and was intended to be broke, I was employed to give her physic, and, to my surprise, found her full-mouthed, the whole of the incisors being fully grown. This was early in the spring. I told Mr. G. that his mare was five years old, and that she must have been three when she had the foal. He communicated the case to Mr. Marshall, His Grace's groom, who, on examining his books, and from his own perfect knowledge, asserted she was only four years old, and also, that, when a year old, she had not been near any others but yearlings, consequently she must have been covered by a colt of her own age*. This statement, I must say, at the

* I hereby certify, that a chestnut filly, by Canteen, was sold from His Grace the Duke of Buccleugh's stud, in the year 1838, she being then one year old; that she had a foal at two years old; that I was applied to, when

time I did not think correct. There might have been some mistake in the books. The mare, thought I, must be five years old, notwithstanding all the assertions made to the contrary.

I have now good reason to alter that opinion. About the end of the year (1845) I examined an entire colt, Young Excepton, the property of Mr. Thomas Cossar, of this place. He has travelled hereabouts this season as a stallion. His sire, Excepton, who also belongs to Mr. C., gained the Highland Society's premium of £50 at Edinburgh, in 1843. His pedigree I inclose:— This colt I found had shed his four corner incisors; the young teeth were well up, exactly what I should have expected in a colt four-and-a-half years old. I have examined him often since, and find that his mouth presents all the characters of a five-year-old. He has never been out of Mr. Cossar's possession, he having brought him up purposely for a stallion. He was foaled about the end of May 1842.

I examined a chestnut colt, half brother to the above, on the 16th Dec. 1845, for insurance. He belongs to Mr. Wm. Scott, flesher, Pathead (about six miles distant from this), by whom he was bred, and in whose possession he now remains: his corner incisors were just shedding then. I examined him a few days ago for the purpose of writing this, and found them fully up. The tushes are about half an inch long. Indeed, he possesses such a mouth as would have removed all hesitation at one time from me of giving a certificate that it belonged to a five-years-old horse. Mr. S. tells me he was foaled on the 14th May, 1842.

I am sorry I cannot give you the appearances of his mouth at an earlier age. I have no doubt, had it been looked to, the change in the other teeth would have been observed equally early. I am not aware that there are any cases of this kind on record, and shall be glad to hear that, in future, more attention is paid to such cases.

she was four years old, by Mr. Gray, who told me that Mr. Horsburgh, veterinary surgeon, said she was then five years old; that I examined my book, wherein a correct registry is kept, and from that, as well as from my own certain knowledge, found she was then only four years old, she having been foaled in the month of May.

(Signed) M. Marshall.

Dalkeith Palace,
July 21, 1846.

POLYPUS IN THE THROAT OF A HEIFER ERADICATED BY TORSION.

By Mr. J. YOUNGHUSBAND, *Greystoke.*

Feb. 18, 1846.—I WAS requested to examine a two-year-old heifer that had a most distressing cough, accompanied by difficulty of breathing, a constant discharge of saliva from the mouth, and, when not engaged in feeding, by the head being kept protruded, held nearly straight out; clearly pointing out that it was a portion of the upper part of the air-passages that was suffering from some abnormal affection to which those parts are liable.

Upon examination I could not detect any thing likely to throw much light upon the disorder, and, therefore, at this time could come to no satisfactory conclusion as regarding the true nature of the complaint. In one thing I was blameable, and that was, in not making at the time an examination of the back of the mouth and neighbouring parts. On the supposition, however, of the upper portion of the windpipe being the part affected, I had the skin all round well blistered; after the action of which had subsided, I applied the bin-iodide mercurial ointment twice a-day for about three weeks; at which time I found to my regret that, instead of my patient improving, she was decidedly getting worse.

Communicating with my friend, Mr. Relph, I desired him to see her along with me, to which he kindly agreed; when he detected a polypus at the upper and back part of the mouth, which by its situation obstructed the breathing, and was causing all those uneasy symptoms from its pressure. The cause of annoyance being discovered, the next consideration was, how to get rid of it. This we agreed to do by ligature; but before we attempted the operation we deemed it prudent to act with great caution; so we had the beast cast and well secured, and then, by way of preparative, performed the operation of tracheotomy, inserting a tracheotomy tube.

We now came to the second part of the performance, which was the placing of a ligature around the neck of the polypus. In this we found no little difficulty, owing to the shortness of its neck, as well as to the situation in which it was placed. The ligature, however, being adjusted, the beast was let up. A little spt. eth. nit. &c. was administered, and orders given as to the dietetic management &c.

May 9th.—On examination, the ligature was gone—the polypus remaining—the patient no better. We were, therefore, com-

pelled to renew the ligature, which was more easily adjusted this time, from the circumstance of the neck of the polypus having become more elongated. The tube still remains in the windpipe.

16*th*.—I had occasion again to renew the ligature, which I effected very easily; still no signs of any separation taking place. Becoming now disappointed in the operation, I resolved, should any thing more be required, that I would employ torsion as a means of getting rid of the intruder; so, at my next visit, which was a few days afterwards, finding the ligature had again disappeared, and now being completely foiled in my proceedings, I at once, and without hesitation, proceeded to remove it by the above-mentioned means. Using my hand in the place of forceps, I succeeded, without much difficulty, in twisting the polypus completely off at the third turn. My patient coughed a few times, and discharged a little blood; but there followed no hæmorrhage of any consequence from the operation.

The beast in a very short time began to graze freely. I saw her again in a few days. The cough had subsided—the breathing had become tranquil—and she evinced every prospect of rapid improvement.

At the time of writing this paper she appears as though nothing had ever ailed her. She is improving rapidly in condition—from having been a mere skeleton—and ere long will be ready to be disposed of.

THE HODDESDON AGRICULTURAL INSTITUTION.

To the Editors of "The Veterinarian."

Gentlemen,—At the present time, when so much interest is being taken by the Agricultural Societies in the better education of the veterinary student, and the more perfectly fitting him to become a better practitioner on *all* domestic animals, will it be believed, at this very time, that a system is going on, replete with the greatest mischief, fraught with the most disastrous consequences to all parties.

At the Institution near Hoddesdon, Herts., established as a model farm, at which young men are, or professed to be, taught *every* thing, there is, amongst other objects, a class on veterinary subjects, presided over by the Professor of Cattle Pathology at the Royal Veterinary College, London. Are these young men, so taught, to be considered as veterinary surgeons, or in what light

are they to be looked on? Is it intended to make this institution a nucleus for a new veterinary school, or what can the object be? Look at it in whatever light you may, it still presents an injurious aspect. It is detrimental to those who may be unfortunate enough to be imbued with a smattering of one of the most complex professions in existence; complex, because embracing the study of so many animals different in structure, habits, liability to disease, and requiring each a distinct knowledge of the effects of remedial agents; hence it must prove to those who can have but a very small rudimental idea, not a benefit but a positive evil, knowing enough to do harm, but not enough to remedy. The axiom that a man is better who can merely read and write than one who cannot, does not hold good with the sciences; for here, unless a man is capable of discriminating between cause and effect, he is in an infinitely worse position than being completely ignorant. For example—for the epizootic raging a few years ago, a crude form of treatment was drawn up by the principal professor of the Veterinary College, and adopted and promulgated by the Royal Agricultural Society. It was eagerly taken up by stock-keepers, and what followed?—the almost complete expulsion of the regular practitioner, who understood the nature of the malady, and was beginning to combat its ravages. And did the advantages of non-expense in the treatment save the stock-keeper any thing? On the contrary, it proved a fruitful source of loss, as has been since amply proved. From the mode of treatment being unsuitable to the malady, from local circumstances modifying the disease, from its application at an improper stage, or from general mismanagement, the result has been a very much larger number of deaths than would otherwise have occurred, and left in those that recovered a state of disease which is, even now, but too apparent. This must, to a great degree, be attributed to improper treatment and management. The same result can alone be looked for, from the attempt at making the agriculturist his own veterinary surgeon. It may be urged that "experience" will come, after a time, to his aid. Delusive hope! but his purse will be inevitably emptied in the vain effort.

It may be thought that the having some knowledge of the subject will make men more efficient aids to the veterinary practitioner. This is a complete fallacy. A little knowledge gives an itch to be dabbling and interfering, which is hard to be overcome, and hence there will be a constant warfare in the animal's body between the mode of treatment adopted by the regular practitioner, and the crude nonsense of the ill-qualified. This is no ideal picture, as it is unfortunately too often proved. On the other hand, is it just towards a body of men who are devoting their lives, their health,

their capital, to the whole and sole pursuit of this important subject, and who receive in return but a very scanty reward for their labour under the best circumstances, to whom such proceedings as above adverted to are fraught with ruin. It will drive from the ranks of the veterinary profession all that are valuable; and when, too late, the eyes of the suffering stock-owners are opened, they will look in vain for aid. They must not forget that they owe a heavy debt to the veterinary art—a debt that is becoming heavier every day, and which very circumstance proves that they (the stock owners) are more and more the gainers by the process; for whatever tends towards the better management of disease, tends also to the advantage of the stock owner, by diminishing his losses. Thus it will be evident to all reflecting minds, that the best interests of the agriculturists are identical with the improvement of the veterinary art, and, unless the practitioner of that art is properly supported and fairly remunerated, there must be an end of all improvement.

The attempt to make any one man omniscious, is to return to the very infancy of civilized society, and is so completely at variance with the natural order of progressive change, that the attempt will only entail failure; and it is to be hoped that it will not be pursued to such an extent as to be irretrievable.

I am, Gentlemen,
Your obedient servant,
ALEXANDER HENDERSON.

Cockspur Street,
Aug. 15, 1846.

DEFORMITY OF THE OS FRONTIS FROM GLANDERS.

Dear Sir,—I HAVE seen several cases of glanders since I have been in business, but never saw a case before where the bone was so much diseased as in a case recently under my notice. It was taken first with the influenza, and in four months it turned out a confirmed case of glanders. The os frontis was so much affected as to cause quite a deformed face. Thinking you would like to hear of the case, and knowing it my duty to inform you of it, I do it with pleasure, begging to remain,

Dear Sir,
Your obedient servant,
G. B. WEBB, *Baltham.*

W. Percivall, Esq.

ON THE BREECH PRESENTATION OF THE FŒTUS.

By JOHN BARLOW, *V.S.*

IN the last VETERINARIAN there is a paper, evidently emanating from a practical man, giving some cases of difficult parturition in cows, and containing hints useful to be borne in mind by those called on to render assistance on these occasions. I feel disposed to offer a remark or two, in addition to those given by your correspondent, confining myself to that part of the subject relating to breech presentations.

I have frequently, and without much difficulty, rectified a breech presentation, somewhat in the way your correspondent describes: in other instances, however, where the calf was large and the mother young, or the organs of generation naturally small, I have been obliged to adopt another course, which I will explain:—Whether the cow will stand or not, her hind parts should be considerably elevated, and all the other precautions usual on these occasions should be observed. The hock of the fœtus is sought for, and secured in the way adopted by your correspondent; the fœtus is then pushed forward into the uterus by an assistant; the os calcis of the hock, secured by the rope, is grasped by the hand of the surgeon, and pushed forcibly forwards. In this way, the traction of the cord backwards and the force applied to the os calcis in the contrary direction, will bring the lower part of the limb towards the vagina, without necessarily reaching the foot with the hand, which, ordinarily, in consequence of the pressure of the fœtus against the brim of the pelvis, is frequently a difficult task. The surgeon can rarely introduce both hands and arms far into the vagina with advantage, but another person may easily introduce an arm its entire length by placing himself back to back with the surgeon. The benumbing feeling which so unpleasantly affects the arms and hands of operators on these occasions may, in the presentation under consideration, be much obviated by a simple mechanical contrivance of the following construction:—

A piece of round polished half-inch iron, two feet or more in length, which may consist of separate pieces screwing into each other, is smoothly rounded off at one extremity; three inches from the rounded end there is a mortise, say an inch long, into which on each side is received the flattened end of another piece of round half-inch iron, two inches in length; the ends of the last-mentioned

pieces are secured in the mortise by a rivet: they should be moveable, and so constructed as to shut close alongside the end of the main bar, but should have shoulders to prevent them from opening past a right angle. This sketch may give an idea of the instrument, with one side piece, B, partly closed and the other open. The way of using it is as follows: the side pieces, B B', are closed and grasped, along with the end of the main bar A, in the hand, and introduced into the uterus; they are then opened, and the central end A introduced into the anus of the fœtus; the instrument is now given in charge of an assistant, who can efficiently force the fœtus forwards, at the time that another assistant with the cord is pulling backward, and while the surgeon, grasping the os calcis, forces it in a contrary direction to the traction of the cord: the limb is thus brought into the proper position easier than by any other method with which I am acquainted.

It is a difficult task to remove the hind extremities from the fœtus, in consequence of the quantity of muscle which requires cutting through, before arriving at the articulation connecting them with the trunk, and in consequence of the forcible pressure which the fœtus exerts on the brim of the pelvis: should the foregoing means fail, unless there is some malformation of the fœtus, it is, in my opinion, better to lay the cow on her back, and to attempt, first, to rectify the presentation by availing ourselves of the additional advantage thereby afforded, rather than at once seek to remove the hind limbs by the knife, which I would not resort to until the expedient I have noticed, and other means which might suggest themselves, have failed. When the cow is on her back, the hind legs should be well kept up, and backwards, the thighs should not be suffered to press on the abdomen: to effect this, they will require to be secured separately from the fore legs, and to be properly fastened to something above.

Edinburgh Veterinary College.

STATEMENT OF THE CASES OF DISEASE AMONG DOMESTICATED ANIMALS OCCURRING AT THE EDINBURGH VETERINARY COLLEGE,

From July 1st to July 31st, inclusive.

By Professor Dick.

Disease.	Number of Cases.			Deaths.		
	Horses.	Neat Cattle.	Dogs.	Horses.	Neat Cattle	Dogs.
Abscess, in various parts ...	2	...	...	...	...	...
Anasarca	1	...	...	...	...	...
Brain, Concussion of.....	1	...	...	1	...	...
Broken Wind.....	1	...	...	...	...	...
Bursal Diseases.....	2	...	...	...	...	...
Catarrh and Influenza.....	15	...	...	...	...	...
Choking.....	1	...	...	...	...	...
Colic.....	7	...	...	1	...	...
Constitutional Debility	7	...	...	...	...	...
Curb, with Lameness	5	...	...	...	...	...
Diabetes	10	...	...	...	...	...
Enteritis.....	1	...	1	1	...	1
Epistaxis.....	1	...	...	...	...	...
Eyes, Diseases and Injuries of	1	...	...	...	...	...
Examinations as to Soundness.....	19	...	...	...	...	...
Feet, Wounds and Bruises of,	29	...	...	...	...	...
Corns in.....	3	...	...	...	...	...
Laminitis	3	...	...	...	...	...
Navicular Disease in.....	3	...	...	...	...	...
Seedy Toe.....	1	...	...	...	...	...
Thrush in	2	...	...	...	...	...
Fistulæ and Ulcers	2	1	...	...	...	...
Fractures of Bones	2	...	...	1	...	...
Gonorrhœa.....	...	...	2	...	...	...
Grease.....	5	...	...	...	...	...
Indigestion	...	...	1	...	...	...
Joints, Open.....	1	...	...	1	...	...
Lameness in Fetlock	3	...	...	...	...	...
Ditto in Hip	4	...	...	...	...	...
Ditto in Knee.....	8	...	...	...	...	...
Ditto in Pastern	4	...	...	...	...	...
Ditto in Shoulder.....	2	...	...	...	...	...
Ditto in Stifle.....	5	...	...	...	...	...
Nasal Gleet	2	...	...	...	...	...
Pleurisy, Pneumonia, and Bronchitis	3	21	...	...	13	...
Roaring	1	...	...	...	...	...
Staggers.....	9	1	...	...	...	...
Strangles	3	...	...	...	...	...
	169	23	4	5	13	1

Disease.	Number of Cases. Horses.	Neat Cattle.	Dogs.	Deaths. Horses.	Neat Cattle.	Dogs
Disease brought forward	169	23	4	5	13	1
Spavin, with Lameness.....	7	...	...	...	...	...
Skin, Diseases of	12	...	2	...	..	...
Spine, Injury of	1	...	...	1	...	...
Sprains of Tendons, &c.....	20	...	...	...	...	...
Tetanus.....	1	...	...	1	...	...
Teeth, Diseases of	4	...	...	...	...	...
Tumours	2	...	...	...	...	...
Tympanitis.....	...	1	...	...	...	...
Weed	5	...	...	...	...	...
Wounds and Bruises, except in Feet.....	19	...	...	...	...	...
	240	24	6	7	13	1

General Abstract.

Cases among Horses..... 240		Deaths among Horses	7
„ Neat Cattle 24		„ Neat Cattle..	13
„ Dogs 6		„ Dogs	1
„ Total number 270		„ Deaths.....	21

The number of cases of staggers among horses has been considerable during July. The nature of the disease, as indicated by its symptoms and course, has been in every essential respect the same as that which was noticed as prevailing extensively last month. Although accounts have been forwarded to us of the appearance of a similar affection amongst neat cattle, only one case of this kind in a cow has come under treatment here.

The animal alluded to belonged to a diary keeper in the vicinity of the College, and assistance was applied for on the 8th July. The owner, who had previously lost several cattle from pleuro-pneumonia, was afraid that the case in question was one of the same kind. The cow was a valuable one of the Ayrshire breed, rather aged, but in good condition, and before being seen by us had been off her meat two days: she had got a quantity of purgative medicine, and the bowels were, consequently, rather lax than otherwise: there was great stupor, and unless roused or made to move, she was apparently blind; when lying down she moaned loudly; if made to walk, she reeled about, and on coming in contact with any object would stand with the head firmly fixed against it. The pulse was 55, and almost imperceptible: the breathing was neither laborious nor accelerated; the secretion of milk was much lessened, and the udder on one side was hard and inflamed; rumination was suspended; the extremities, horns, and ears were cold, but the nose was rather moist.

A smart dose of saline purgative medicine combined with a large quantity of aromatic ingredient was administered, the head was kept wet with cold water, and clothing was applied to the body; the udder was ordered to be fomented and drawn frequently, and linseed gruel, sweetened with treacle and containing a small quantity of nitre, was directed to be given every five hours. No observable amendment was evident for two days, when, after purgation had ceased, there was some mitigation of the symptoms. The pulse, however, continued extremely weak, and although the cow seemed much more lively and had ceased to moan when down, there was great debility existing. Under the administration of vegetable and mineral tonics the appetite gradually improved, and the animal is now well. The secretion of milk continued limited, and the induration of the udder remained for nearly three weeks after the commencement of the disease.

The case of Tetanus, which terminated fatally, occurred in a fine black draught horse, the property of a contractor for the street cleaning. The disease came on without being traceable to any wound, exposure to weather, or other apparent cause, and was first perceived in the evening of July 10. The owner bled the horse copiously, gave him ten drachms of aloes, and clothed him in fresh sheepskins, as soon as the nature of the disease was evident. As the animal was insured, the agent of the insurance office, on the day after these remedies had been employed, requested us to see the horse; and as he then appeared doing as favourably as could be expected, and from what had been previously given, no other medicine was administered, and directions were left how to manage the case until the following day. The owner, however, who is fond of treating his own cases, bled the horse again, which, with the exhausting effects of the disease, induced such prostration of strength that he died on the 12th. Copious blood-letting frequently proves highly injurious in tetanus. The ultimate recovery from this affection mainly depends on the constitutional resources of the animal being able to outlive and re-act upon the original cause of the disease, which, though sometimes evident, cannot on other occasions be detected. Although an inflammatory condition, as in the brain, spinal cord, and lungs, is often found after death, and may have hastened a fatal termination, still this appears to be an effect of the malady rather than an evidence of its intrinsic nature.

The case of Roaring, although brought here, was not subjected to treatment. Many instances of this disease come under notice in examining horses for soundness, but they are not reported as separate cases. The case of Broken Wind is still under treatment: great mitigation of the symptoms has taken place; its future progress will be noticed next month.

Under the head "Sprains" are included cases of sprain of the tendon of the flexor pedis posticus at the hock, of the tendon of the gluteus maximus, and of the flexor brachii: the majority of cases consists of sprains of the tendons and ligaments below the hock and knee. There is one case of sprain of the extensor metacarpi magnus above the knee: in this instance the part affected presented the usual symptoms—swelling, heat, and pain; when the extremity was raised from the ground, the shank dangled much about, the elevation of the limb was greater than natural, and the foot was placed upon the ground with considerable force in walking.

One of the cases of sprain of the flexor brachii occurred in a bay carriage horse, belonging to J. Anstruther, Esq. The lameness was observed while staying at one of the watering places in England. He was considered by one of the parties consulted to be lame in the foot, and by another lame in the knee, and was blistered in both these places. No amendment, however, being observed, he was sent home. The seat of lameness was found to be the flexor brachii, over which a blister was applied, and in ten days afterwards the horse went sound.

The disease termed "Weed," which consists of inflammation of the absorbents, mostly in the hind legs, is more frequent in this country than in most parts of England: the number of cases here, however, does not appear to be so great as formerly: this, in all probability, depends on the feeding and grooming of horses being much improved of late years. Out of the five cases reported this month, three occurred on Mondays, a day on which they are always most common. The frequency of the occurrence of the disease on this day can generally be accounted for on inquiry, by finding that the patient has been improperly fed for a time previously, which, together with standing in the stable for two nights and a day at the week's end, and probably feeding grossly, appear to be the causes of the disease. It commences, or is rather observed, first in the inguinal lymphatic vessels and glands, which become much swollen and extremely painful, from these the swelling proceeds down the limb in the direction of the absorbents, and the inside of the thigh is frequently so painful that the horse is almost unable to walk. In ordinary cases recovery is not tedious: there are instances, however, in which permanent enlargement of the limb supervenes, and on a few occasions, in consequence of the extent to which the absorbent vessels are involved in disease, and from the length of time which their natural functions are interfered with, ulceration takes place, and the limb presents the appearance of being affected with farcy.

WILLIAM DICK.

SOME OBSERVATIONS ON DISEASE IN POULTRY.

In a Letter from F. KING, *Sen. M.R.C.V.S., Stanmore.*

I HAVE been on a visit to a friend who has suffered much by a loss of poultry: one hen had died just before I got there. The only history I had was, that she was full of fat and eggs, and had laid one the day before she died. Another became amiss, with drooping tail, and feathers generally upstaring, and no desire for food. I felt her crop, which was not half full, in which I could discover some barley. She would creep away any where to be private. The third day she died.

Post-mortem examination shewed that the intestines held nothing; the gizzard held some pebbles, and the inner coat of it was corrugated and hard, and of a dark olive colour. The crop had some barley in it, and a small quantity of dead leaves—I should say, privet leaves. She was fat, and full of eggs—two or three quite the size of a yolk.

In two days, another became ill with precisely the same outward appearance.

I examined the crop, which handled just as the former one. I gave her a dessert spoonful of ol. olivæ, and let her go.

The next day presented no alteration, the crop handling just as the day before. I handled it, and turned its contents quite over and over, and gave two spoonfuls of oil. The third day no improvement, except the crop feeling a little emptied. I examined her skin, and observed the veins running over the sides to be turgid; so much so, that I determined on opening them, and drew away blood from each side. The fourth day much the same: repeated the bleeding, and, as she had not eaten any thing, had a little rice boiled to a pulp and put down her, and repeated that dose the next day, when she began to mend. She was so weak that she could not stand on her roost; but has now become perfectly well.

A MEMBER OF COUNCIL'S REPLY TO "ONE OF THE INJURED PARTY."

To the Editors of "The Veterinarian."

Gentlemen,—IN your last number there is inserted a letter signed "A Subscriber, and one of the injured Party," so grossly inaccurate, that some notice must be taken of it. It smacks so strongly of all

and every thing that emanates from the Edinburgh school, that there can be little doubt by whom the garbled statement is written. The facts are as follow :—

The letters laid before the Sitting of Council, June 3d, were all connected with the examinations of the present year 1846, and had nothing whatever to do with the examinations of any party or parties of the former year. The diplomas requisite for the year 1846 were dispatched in the month of May to Edinburgh, and as they have been so long since sent to the parties who were to deliver them forth, the Council cannot be blamed for delay (if any) which has occurred without knowledge or consent on their part.

With regard to the position of these "*unfortunate*" young men, of which so much is attempted to be made, the facts are equally simple. There are required by the Regulations for the Examinations of Students, certain certificates, which have to be given in at a stated period, before an examination can take place. In the case of these "*unfortunates*," the required certificates were not sent by Professor Dick; and, though every facility was afforded for their production, they have not been produced. These parties were, before the examination took place, duly protested against, and therefore the Council can have nothing to do with those who, by the omissions of others, or by their own want of care, are placed beyond the control or influence of the Council. How or by what means, therefore, the Council can be charged with injustice towards these "*unfortunates*," is a mystery; and these parties must well know that, not having complied with the requisite regulations, any examination they may have undergone is quite a gratuitous one, and only can be considered in the light of being done to please themselves. If it is "*justice*" to give to these "*unfortunates*" diplomas, when they have not complied with requisite regulations, it must be "injustice" to nearly two hundred other young men who have *all* complied with the regulations to the full.

While on the subject of examinations, it may not be amiss to advert to another circumstance connected therewith; namely, the applications made by four pupils of the Edinburgh school for a *special* examination. In the report of the sittings of Council held July 1st (*vide* VETERINARIAN), will be found a statement of the decision of the Council. Another application has been made by part of the former applicants, to which a similar reply has been made.

The power of calling a special meeting of the Board of Examiners is entirely discretionary, and so much so that it has only been once exercised on the application of two known practitioners, one of upwards of fifty years', the other of sixteen years' standing.

The London rule being to have four examinations per year, renders special examinations less requisite for this part of the kingdom; but at the same time it must not be forgotten, that if men make their election as to which of two schools they choose to study at, they must be supposed to know what are the rules and regulations of each; and therefore they must, by all the rules of custom abide by them: hence, as the custom at Edinburgh has always been to have but one examination per year, all pupils there ought to know that the being rejected at one examination is tantamount to being sent back for a year's further study. How far two of these applicants have profited by this prolonged study is difficult to say, as they appear to have been *thrice* rejected.

Now, can any one in his senses suppose that the Council would be justified in specially calling together the Board of Examiners for the purpose of such as these appearing before them? And I must say that, under such circumstances, it does not shew an overburdening of good sense on the part of the applicants seeking for it.

I have made these remarks, because I think that a statement of FACTS was requisite. I do so because, as having taken a very active part, I considered that in some measure I was bound to reply to false statements.

I am, Sirs,
Your obedient servant,

W. ARTHUR CHERRY,
Member of the Council of the Royal College of Veterinary Surgeons.

August 15th, 1846.

*** Any future letter from "One of the injured Party" must appear in his own name.—EDIT.

MR. BARLOW'S ANSWER TO MR. MAYHEW'S SECOND LETTER.

Edinburgh Veterinary College,
13th August, 1846.

To the Editors of "The Veterinarian."

Gentlemen,—I AM exceedingly sorry that Mr. Mayhew is so much hurt by the answer I sent to THE VETERINARIAN. I did hope that the "kindly feeling," of which I gave assurance would have met with a different reception by him, and that I should have

received something better in return than the "meanness of abuse and the grossness of personality," of which his second letter is composed.

This second letter is indeed an amusing document. By bandying bluster, bombast, and Billingsgate, its author avoids not only discussion of the question to which I have invited him, but even abstains from allusion thereto. His plan of tactics forcibly reminds me of the "red herring" artifice, which consists in tying the herring in a string, and dragging it in various directions across the track of game, in order to direct pursuers from the real object of chase.

In one who sets himself up for a discoverer in science, and finds he is treating as "something new" what was considered "common place" a hundred years ago, and who undertakes to criticise the language of others while unable to express himself correctly, I admit there is abundant cause for *self* reproach, and probably some excuse for using a "red herring," in order to elude those who are unwilling he should run away with a credit not his own. The self-recrimination of such an one may so far embitter his temper as to induce him to indulge in the "grossness of personality" against those who tell him unpalatable truth; still, in so yielding to the temptation which besets him, in so resorting to the "red herring," he makes use of an expedient which merely amuses your readers and myself, and will not serve as a defence for him, who seems unable to employ another. When such a person as this accuses me of want of candour; when the language of him who charges me with incivility is defiled by "vulgarity" in every page; when a father, a CHIRON in the profession, deals with a "weak-minded young man" by condescending to the "meanness of abuse," it is all a "red herring." His objection, that I should "introduce into controversy the name of any person who may be alive"—his evasion of the charge, which I re-assert, that he garbled my language—his charge of inconsistency against me, because I could not understand two contradictory sentences—his supposition that I know nothing of him because living "hundreds of miles distant"—is but a "red herring."

I cannot conceive it my blame if Mr. Mayhew proves deficient in those branches of knowledge wherein he most prides himself. It is, surely, fair to expect correctness of expression in one who complains of want of accuracy and perspicuity in others. "To be" and "*not* to be" are very different conditions, which, although his "governess" may have omitted to notice, Mr. Mayhew will find clearly distinguished in the "Elements of English Grammar." But when a *teacher* and a *discoverer* in science describes the "common place" matter of the past century as "something new," and

will neither relinquish his claim nor prove his title for originality of discovery, yet draws a "red herring" across his retreating steps, surely we have ample evidence of the real worth of the game. The familiarity of such a person with St. Giles's and Billingsgate gives him an advantage in using the "red herring" of the latter locality: of this I neither envy nor wish to deprive him; but it is unfair for one so accomplished in *declamatory* coarseness of expression to endeavour to supply deficiency in argument, and to evade discussion, by gratifying "the temptation to which his taste or disposition may expose him."

In my former letter I merely took Mr. Mayhew upon his own admissions. I saw in them much calling for the "kindly feeling" and advice which I extend. Now, he is displeased because I believed that, concerning himself, he told the truth, and pretends to construe my charity into "abuse," in order to justify a defenceless position by a recourse to his mother tongue of St. Giles's, which, like all the language he uses, is a "red herring." I dare say my distaste for anatomy equals that which Mr. Mayhew entertains; nevertheless, I find it essential to know *something* regarding it: could I, like him, become a discoverer in the science, as well as a physiologist and pathologist, without "scraping out with the scalpel," I might still more disdain the "dirty occupation."

I hope that "before another month shall expire" I may be "enabled to congratulate" Mr. Mayhew on "one point," and that is, his merit for originality in physiological and anatomical discovery, his claim for which, I trust, he will substantiate by evidence and by writing to the purpose. At present, I contend, that his claim is groundless, and that he shines in a "borrowed light."

Let him adduce arguments and proofs against mine, and I will endeavour to meet them; let him avoid compliments, which can be reciprocated without so lamentably disturbing his usually *gentle* equanimity of temper; and, above all, let him not *further* seek to convince your readers that all his dependance is upon a "red herring."

I am, Gentlemen,
Your's, sincerely,
JOHN BARLOW.

*** We reluctantly give insertion to this letter; but having done so, we are bound, should Mr. Mayhew reply—which we hope he will not—to publish one more; and that, so far as we are concerned, will terminate the now-become offensive controversy.—ED. VET.

CORRESPONDENCE BETWEEN MR. BARLOW AND THE COUNCIL OF THE ROYAL COLLEGE OF VETERINARY SURGEONS.

To the Editors of "The Veterinarian."

"Edinburgh Veterinary College,
"13th August, 1846.

In THE VETERINARIAN for August, there appears the report of a Committee of the Royal College of Veterinary Surgeons, signed by Messrs. E. Mayhew, E. N. Gabriel, and W. A. Cherry. In consequence of receiving from the Secretary of the Council a similar document, containing statements regarding myself on which I requested some explanation, I wrote to him as follows :—

"Edinburgh Veterinary College,
"11th July, 1846.

"Sir,—Along with your letter of the 9th inst., I have this day received a copy of Report on the Edinburgh examinations. The greatest part of that document does not in the remotest degree concern me, as it relates to matters in which I have not taken any part. The only portion of the Report which I require at present to notice, and on which I request an immediate explanation, is the paragraph, 'Sixthly, That Mr. Barlow, not being a professor, or an appointed lecturer, his assumption of the right to vote as an *ex officio* member of the Board of Examiners was a violation of the bye-law No. 3, sect. 5.' I request to know upon what authority it is asserted that I am not an *appointed lecturer*, and shall expect an immediate answer.

"I am, Sir, your's obediently,
(Signed) "JOHN BARLOW."

"E. N. Gabriel, Esq."

Since writing the foregoing, I have received the following communications from the Council :—

"Rolls Buildings, July 13th, 1846.

"Sir,—I beg to acknowledge the receipt of your letter of the 11th inst., and will lay the same before the Council.

"I am, Sir, your most obedient Servant,
(Signed) "E. N. GABRIEL."

"J. Barlow, Esq."

"Rolls Buildings, July 30th, 1846.

"Sir,—Your letter of the 11th was last night laid before the Council, and their decision is, that, from its discourteous tone, it be not replied to.

"I am, Sir, your most obedient Servant,
(Signed) "E. N. GABRIEL."

"John Barlow, Esq."

To the last communication I replied as follows :—

"Edinburgh Veterinary College,
"August 1st, 1846.

"Sir,—I received your's of the 30th ult. this morning, and in consequence of the course which the Council has thought proper to adopt with reference to the inquiry I made in my last, I shall feel myself at liberty to give what publicity I may deem proper to the correspondence which has passed between us on the subject.

"I am, Sir, your's obediently,
(Signed) "JOHN BARLOW."

"E. N. Gabriel, Esq."

PROCEEDINGS OF THE COUNCIL OF THE ROYAL COLLEGE OF VETERINARY SURGEONS.

Sitting of July 29, 1846.

Present—the PRESIDENT, the SECRETARY, Messrs. BRABY, HENDERSON, W. ARTHUR CHERRY, FIELD, MAYHEW, CHERRY, sen., F. KING, jun., ERNES, JAMES TURNER, and W. C. SPOONER (Southampton.)

THE Report of the Finance Committee was laid before the Council, and, after a few remarks, was adopted and directed to be printed for the use of those who might feel disposed to apply for them; it was also directed to be sent to THE VETERINARIAN, the *Veterinary Record*, and the *Era*.

Mr. J. Turner moved, and *Mr. W. Arthur Cherry* seconded, "That the sum of £17..12..11., advanced by the Treasurer, be repaid." Carried unanimously.

Mr. W. Arthur Cherry moved, and *Mr. Braby* seconded, "That the Interest (£24..13.. 0.,) due on the loan to Feb. 16, 1846, be paid forthwith." Carried.

Mr. W. Arthur Cherry moved, seconded by *Mr. Braby*, "That the principal, and interest thereon, due to Professors Sewell and Simonds, be discharged." After some discussion, the other lenders present consenting that these parties should be wholly paid before their respective claims were attended to, the motion was carried. As also the following motion, "That Professors Spooner and Simonds be applied to for the repayment of £10 each for the extra expense incurred by the insertion of the names of these gentlemen in the charter, such having been done at their own special request."

The President read the correspondence which had passed between H. R. H. the Duke of Cambridge and himself, and also the Report of an interview he had had with His Royal Highness. The following is a summary. A copy of the letter originally sent to the Secretary to the Governors of the Royal Veterinary College, for the purpose of being laid before His Royal Highness, together with a short explanatory note. This was sent July 16th. On the 19th a reply was received from His Royal Highness, appointing an interview for the 21st, which was changed by His Royal Highness to the 23d, when His Royal Highness entered into the subject, and stated that he was desirous of seeing an amicable settlement of all differences, and that His Royal Highness would do all in his power to produce such feeling.

The President then read a letter from Mr. Sewell, dated July 25th, appointing a meeting with the Deputation on Tuesday August 4th.

These documents were directed to be entered on the minutes.

Mr. Gabriel moved, and *Mr. W. Arthur Cherry* seconded, "That Mr. T. Walton Mayer be added to the deputation before appointed to wait on the Governors of the Royal Veterinary College." Carried. The Deputation before appointed consisting of the following gentlemen—Messrs. Percivall, Henderson, Ernes, the President, and the Secretary.

A conversation ensued as to the duties and objects of the Deputation, upon which there did not seem to be any considerable difference of opinion on the part of any one. The Deputation were left with the understanding, that they should adopt the course that seemed to them the best.

A letter from the Secretary of State for the Home Department was then read; but, as the result of the interview with the Governors of the Royal Veterinary College might probably have much influence on the reply, its consideration was held over pending the interview, and a reply was directed to be made, stating the reason for withholding a definite answer. There was but little said on

the matter, it being felt that now was not the time to enter into the subject.

A letter from Dr. Knox was read and directed to be entered on the minutes.

Mr. Cherry moved, and *Mr. Field* seconded, "That a copy of the bye-laws and a copy of the charter be laid on the table at each meeting of the Council," which was carried, (though, by the way, there have invariably been copies of both documents brought to each meeting by the Secretary.)

Several letters were read from different parties connected with the Edinburgh school: these produced a very animated discussion; and *Mr. Cherry* moved, "That the whole (six) be entered on the minutes; but not finding a seconder, he altered his motion to three, viz. letters from Messrs. Thompson, and Mather, and Dr. McGregor, which was then seconded by *Mr. Braby*, and carried.

Mr. Cherry made also two motions, first, "That the letter of Mr. Barlow," and, second, "That two letters of Professor Dick, be entered on the minutes;" but neither motion met with a seconder.

They produced much discussion and expression of feeling from the whole of the Council, with one exception—the letters were both irrelevant to the business upon which they were professed to be written, and couched in language of the most uncourteous character, and were looked on as totally inadmissible. The Secretary was, however, directed to inform the respective parties of the decision of the Council, and causes thereof.

Several letters were read by the Secretary, but were of little importance.

A further application made by two of the former applicants for a special examination at Edinburgh, was directed to be answered in accordance with the former decision.

Notices of motions were given by *Messrs. Henderson* seconded by *Arthur Cherry*, and *Mayhew* seconded by *W. Field*. *Mr. Ernes* moved, seconded by *Mr. J. Turner*, "That the sitting then adjourn," which was, as a matter of course, carried.

Sitting of August 5, 1846.

Adjourned Meeting,

Present—the PRESIDENT, the SECRETARY, Messrs. FIELD, T. WALTON MAYER, J. TURNER, C. SPOONER (Professor), CHERRY, sen., MAYHEW, BRABY, ERNES, HENDERSON, W. ARTHUR CHERRY.

A statement of the result of the interview with the Governors of the Royal Veterinary College was read, and a report was

directed to be drawn up thereon: there were present on the part of the Royal Veterinary College, His Royal Highness the Duke of Cambridge, Messrs. Dennison, M.P., Newdigate, M.P., Angerstein, Berens, Professors Sewell, Spooner, and Simonds.

A pretty long discussion ensued, in which the members of both deputations took part. On the part of the Royal Veterinary College, it was agreed that the alterations proposed by them should be laid before the Council for their consideration; and as there was a meeting called for the next day, they agreed to forward them for the consideration of that meeting; they were accordingly sent, with a note from Mr. Wilkinson, their solicitor, and Professor Spooner also attended, stating that he was desired to do so by the Governors of the Royal Veterinary College, and to give any explanation in his power; at the same time that he was there as an agent on their part to give such explanations, he was there also as a member of Council, and as such he also considered he had a right to act. The question was raised, but left quite undecided, so in what capacity this gentleman is to be considered as acting, has yet to be settled, but which in all probability will settle itself at the next meeting.

The reading of the Charter and the proposed alterations took up a very considerable period; but very little discussion took place. It was too important a document to reply to hastily, and all were desirous of taking time for consideration. But one motion arose out of this subject, that was, "That the alterations proposed by the Governors of the Royal Veterinary College be submitted for the consideration of the Deputation appointed to wait on the Governors, and that they be requested to report on the same to the Council, and that every member of the Council be supplied with a copy of the alterations."

This was moved by Mr. Mayhew, and seconded by Mr. T. Walton Mayer, and carried unanimously.

But little matter arose out of this meeting for notice; the time was taken up in listening to the draft of the proposed alterations or the explanations of Professor Spooner, the result of which will appear when the question comes to be fully discussed.

A few matters of minor importance were disposed of, not requiring special notice, the business of the sitting being the understanding the proposed alterations, of which much had been said, but with the nature of which the Council were now for the first time made acquainted.

Sitting of August 19, 1846.

A Special Meeting, called to receive the Report of the Committee appointed to consider the proposed alterations in the Charter, as laid before the Council for their consideration by the Governors of the Royal Veterinary College, and for general business.

Present—the PRESIDENT, the SECRETARY, Messrs. FIELD, LANGWORTHY, WILKINSON, F. KING, jun., ROBINSON, MAYHEW, ERNES, BRABY, HENDERSON, W. ARTHUR CHERRY, J. TURNER, C. SPOONER (Professor), and Mr. Shepperson, Visitor.

The minutes being read, before they were signed by the President, *Mr. Mayhew* rose, and, after some remarks on what he considered to be erroneous proceedings, he presented several protests, which were read, and, without further comment, the minutes were then confirmed.

The report from the Deputation, directed at the last sitting to be prepared, was presented, and read by the Secretary; and it was moved by *Mr. Arthur Cherry*, seconded by *Mr. F. King*, "That the Report be adopted and inserted on the minutes," which was carried without a dissentient voice.

The President read the copy of a letter he had addressed to *Mr. Mark Phillips*, merely to inform that gentleman of the reason of the delay in not giving a definite answer to the communication received from the Home Office.

The Secretary read a protest against any alterations being made in the present Charter from *Mr. T. Mayer*, sen., and also another protest of the same tenor from *Mr. T. W. Mayer*, jun. It being moved and seconded that both these protests be entered on the minutes, the same was carried.

At the last sitting, the gentlemen who had been appointed on the deputation were re-appointed, as a committee, to draw up a report on the proposed alterations; and the report being now presented, the same was read by the Secretary, and, after some general remarks by several members, it was decided that, as the Committee had divided the proposed alterations into clauses, and numbered them for the more easy reference, that each clause in their report should be taken *seriatim;* and they were now read separately, discussed, and put to the vote.

There did not appear to be any difference of opinion amongst the members as to the course to be adopted; the only difference seemed to be as to the terms in which such opinions were to be conveyed.

The opening clause, proposing the admission of the members of the Agricultural Societies and the Governors of the Royal Veterinary College into the body corporate, having been objected to by Professor Spooner, on the ground that such admission was not sought for, it was given up after a long debate. The rest were, with some few modifications, all adopted; the whole of them, however, being most critically and minutely examined into before they were adopted. It will not be requisite to enter into a more lengthy report of this part of the proceedings; because the opinion of the Board being so very unanimous, and such an important document

requiring, in some way or other, to be made public in order that the body corporate may see the attempt made to overthrow the Charter, the very division itself will shew all that is necessary.

A point of duty compels us to advert to certain parts of the discussion which assumed too much of a personal and acrimonious character: we regret this the more, as a member taking part in it having the reputation, whether truly or falsely we know not, of being one of the concoctors of this notable scheme, did not display either much tact or temper; and with such an impression against him, it would have shewn but simple good taste to have remained silent. We hope that such scenes as these will not again occur.

After the several clauses had been discussed and adopted, the amended report was read over again; and it was moved by *Mr. King*, and seconded by *Mr. Langworthy*, that the same be adopted and entered on the minutes.

Mr. W. Arthur Cherry moved, "That the Report be transmitted to the Governors of the Royal Veterinary College," which being seconded by *Mr. Mayhew*, was carried, and the Secretary was directed to do so; upon which that gentleman took the opinion of the members present upon the form of the letter to accompany the Report, which meeting with approval, he was desired to act as speedily as possible in forwarding the same.

It being very late when these proceedings terminated, it was decided that the reply to the communication from the Home Office should stand over to the next sitting.

There were a few other matters of minor importance which were likewise postponed from the same cause.

Notice of motion was given to amend the Bye-Law No. 2, Section vi, by *Mr. Ernes;* and

Mr. Mayhew gave notice of motion, "That the conduct of *Dr. Mercer*, President of the Board of Examiners for Scotland, be inquired into."

THE OBJECTIONS

Of the Royal College of Veterinary Surgeons to the Alterations proposed in their Charter by the Governors of the Royal Veterinary College.

[Having obtained the reply of the Council of the Royal College of Veterinary Surgeons to the alterations proposed to be made in the Charter, we insert it for the information of our readers.—Ed.]

The Council of the Royal College of Veterinary Surgeons, after a full and deliberate consideration of the alterations proposed by the Governors of the Royal Veterinary College to be made in

their Charter—after a calm and impartial investigation of the principles on which the proposed changes are founded, and a careful and steady deliberation of the consequences likely to ensue from their acceptance or rejection—beg, with all due respect, to submit to the Governors of the Royal Veterinary College the conclusions at which they have arrived on the same :—

No. 1, proposing that the Professors of the Veterinary Colleges shall be *ex officio* members of the Council, is objected to, because the Professors are already eligible to be *elected* members of the Council; and we are not aware of any well-grounded reason why, as teachers only, they should be *ex officio* entitled to that distinction; all precedent, moreover, being against the same.

No. 2, proposing that members residing more than twenty miles from London be allowed to vote by proxy, we consider open to every objection: it is bad in principle, obsolete or nearly so in practice, and injurious in operation.

No. 3. The proposed erasure of the existing clause, that the Professors shall not become Examiners, is objected to, both because it was a Government introduction into the Charter, and because it has been received with very general satisfaction by the profession.

No. 4. The proposed reduction of the fees for examination and admission from ten guineas to five, is objected to; because it is more desirable that the Council should have the power of charging each candidate the former sum, than that the rejected pupils should be liable to accumulative fees.

No. 5, proposing that all acts of the Council be submitted for approval to a Veterinary Board, is objected to, as hereinafter explained.

No. 6, proposing the formation of a Veterinary Board, to have the entire controul over the actions of the Council, and therefore of the profession at large, is objected to; because it is not a fair representative Board, the President and Members of the Royal College of Veterinary Surgeons being excluded from a tribunal appointed to decide on matters strictly professional.

No. 7, proposing that the Veterinary Board may vary, alter, or add to the examinations of the pupil, is objected to; the Council considering themselves the best judges of the qualifications required of the candidates appearing before their Board of Examiners.

No. 8, insisting that no bye-law passed by the Council shall be of any force unless approved by the Veterinary Board, is objected to; because, the Council being the freely elected representatives of the profession, we can see no good reason for or sound policy in subjecting their decisions to the supervision of a self-elected and irresponsible board, and that the surrendering the final arrangement

of their bye-laws would be committing an act that would render them, what they would richly merit to be, a perfect non-entity.

No. 9, proposing a new Board of Examiners, and granting the power of acting thereon to the Professors of the Veterinary Colleges, is objected to; because the Council, and the profession generally, are perfectly satisfied with the members of the present Board, and therefore do not see any necessity for a re-election; that the Professors have no reasonable claim to act as Examiners; that, in fact, they have repudiated such claim, and that they are already *ex officio* members of the Board.

No. 10, proposing a curriculum of studies for the pupils, is objected to; not only because the certificates required from the pupils having been already decided on by the Council, they see no reason for altering the same, but still more particularly as the test of that most important part of veterinary education, a practical knowledge of the foot of the horse, is in the proposed programme altogether omitted: the necessity for this decision will be self-evident on reference to the following original list of studies required at the Royal Veterinary College more than half a century ago:—1st course, the study of Zootomy; 2d, the study of the Exterior of the Horse; 3d, Course of Operations; 4th, Course of Pharmacy; 5th, Course of Botany; 6th, *Shoeing* and Pathology; 7th, Clinical Instruction and attending to Patients; 8th, Epizootic Diseases—forming a far more comprehensive curriculum than this proposed to be definitely fixed by charter half a century later. The only exception to this decision might be with respect to the apprenticeship clause; without doing away with which, an attendance, instead, of three years, at either of the Veterinary Colleges, might be considered satisfactory.

No. 11, fixing the further period of study for the rejected candidates, agreed to, but not the additional fees.

THE VETERINARIAN, SEPTEMBER 1, 1846.

Ne quid falsi dicere audeat, ne quid veri non audeat.—Cicero.

OUR reports of the proceedings of Council will be found pregnant with interest. The tiresome correspondence with Mr. Secretary Sewell at length ended in a day and hour being appointed at which a conference would be held by the Governors of the Royal Vete-

rinary College with the Deputation of the Council of the Royal College of Veterinary Surgeons.

On Tuesday, Aug. 4th, the Deputation waited upon the Governors assembled in committee at the Thatched House Tavern, St. James's Street, his Royal Highness the Duke of Cambridge having on the occasion graciously condescended to take the chair.

There was a good deal of caution and reserve exhibited at the commencement of the interview; the Governors alleging that, as the conference had been sought by the Deputation, the business of the meeting would have to be opened by the latter. To which the Deputation courteously replied, that, as rumour had been rife in whispering into the ears of their Council that the unalloyed satisfaction throughout the veterinary profession the Charter had given was not shared by the veterinary schools or colleges, and that as it was their Council's wish to conciliate *all* parties, they had been deputed to attend on the present occasion, to learn in what respects the Charter had not given the desired satisfaction, with a view, if possible, to remove any alleged objections. This elicited the secret. The Governors now unreservedly made known to the Deputation the heads of their proposed alterations in the present Charter, accompanying the divulgement with the expression of hope that the Deputation would see the wisdom and policy of assenting to such alterations being made; otherwise they (the Governors) would labour under the necessity of carrying out a plan they had in prospect, of obtaining a separate Charter for their own and the Edinburgh Veterinary School.

Now, the alterations proposed to be made in the Charter are of a nature that, were they acceded to, would, to all wholesome intents and useful purposes, render that instrument, *virtually and substantially*, a dead letter. It is, or was, proposed to form A VETERINARY BOARD, to be constituted of the Secretary of State, of Governors of the Royal Veterinary College, of Members of the Agricultural Societies both in England and Scotland, of the Principal Veterinary Surgeon of the Army, of the Veterinary Examiner of the East India Company, and of the senior Professors of the London and Edinburgh Veterinary Schools; there being, in the whole, fourteen members of the said Board, but four of whom are veterinarians, and three out of those four taken from the two "Colleges." And

to this Board was to be sent by the Council of the Royal College of Veterinary Surgeons all bye-laws for approval or rejection. Thus, are the members of the veterinary profession—now numbering nearly a thousand strong—told in plain unmistakeable language, that they are a set of boobies and blockheads, incapable of understanding or managing their own affairs, and that, therefore, they ought to surrender all the power their recent Charter has given them into the hands of men who *really do understand* their concerns, and to these persons of *superior veterinary intelligence to themselves* bow down their necks in professional bondage. We could write volumes more on this preposterous "proposed alteration;" but after having read the sentence in our "Report," (p. 15) stating that—"The opening clause (in the Report drawn up by the Deputation, now become a Committee) proposing the admission of the members of the Agricultural Societies, and the Governors of the Royal Veterinary College, into the body corporate, having been objected to by Professor Spooner, on the ground that such admission was not (*now*) sought for, it was given up, after a long debate;" we repeat, after reading this, we stay our pen on the subject of the "Veterinary Board," a board we never wish to hear mentioned again.

The second alteration, in point of importance, proposed to be made in our Charter is, that the Professors—teachers—at the respective veterinary schools should be reinstated into the offices of examiners of their own pupils. Now, to this return to an obsolete, unexampled, unpalatable usage, the "objection" urged by the Council (p. 517) is twofold—"because it was a *Government* introduction into the Charter, and because it has been received with *very general satisfaction* by the profession." We must confess, in our own minds, we had all along given the concoctors of the Charter the credit of this "introduction:" we are sorry—and so, we dare say, now are they—to find it is not theirs. Since, however, it was "the Government's," we trust that the Government which foresaw the wisdom of introducing such a clause will, in the same sagacious spirit, see the necessity of maintaining undiluted so wholesome and integral a constituent of a veterinary charter.

The other proposed alterations, of minor import, have—as,

indeed, have they all — been so ably, and though succinctly yet unanswerably, replied to, in the "Report" approved by Council, and ere this transmitted to the "Governors," that all comment from us is needless. All that we have to add is, we have nothing to repent in having stuck to our Charter; but, on the contrary, experience every feeling of satisfaction at having, in spite of all remonstrance and temptation, persistingly so acted. And, finally, with the two unswerving, unflinching *Mayers*, we also enter our "protest against any alterations being made in the present Charter."

We beseech our professional brethren of the ECOLE VETERINAIRE D'ALFORT to contradict, if they can—for justification is quite out of the question—that such horrible cruelties as are depicted in Mr. Murdoch's account of his "Visit" to their school in our Number for July, and confirmed by Mr. Rogers' communication to Mr. Youatt in our last, are continued to be perpetrated with their cognizance and consent. Surely, the Professors at the famed Veterinary School of Alfort are not the men to stand by and see that noble and generous animal, THE HORSE, on whose account and for whose benefit the institution was founded, put to cruel torture simply for the purpose of initiating pupils in operations which might be learnt with sufficient accuracy on the dead subject to put into practice whenever occasion might require upon the living. Do surgeons practise their operations on the living subjects? And are veterinary surgeons better operators than surgeons? or have the former more difficult operations to perform than the latter? No, no!—vivisection is not required to make a veterinary surgeon; else in this country should we be all bunglers, which we flatter ourselves is not the case. Can it be possible that sixty-two operations are performed on the same living horse!—that twelve horses are thus operated on weekly!—that half of these die ere the operations are completed!—and that the operations consist in firing in every part, required or unrequired!—in extraction of the lateral cartilages!—in lopping off ears and taking out eyes!!!—Forbid it, heaven!

Mr. Rogers seems to think we of the veterinary profession in Britain ought to address a memorial on the subject to the French

government. Such, perhaps, would be the most effectual and certain way of putting an end to such barbarous and disgraceful practice, the veterinary schools in France being under the surveillance of the ministry: we should hope, however, that no such step will be required—that simply a remonstrance, a *prayer*, from us—from the veterinary profession in this country—to the Alfort professors will have the effect.

Veterinary Jurisprudence.

Thompson *v.* Patteson.

This was an action for the breach of warranty of a horse, tried before Mr. Justice Cresswell, at Liverpool, August 19, 1846.

Mr. Martin and Mr. H. Hill appeared for the plaintiff; Mr. James and Mr. Jones for the defendant.

The horse in question, a bay gelding, had, it appeared, been sold at Chester fair in February last by the defendant. The horse had, some time before, received a kick in the hind leg, from the effects of which he had not quite recovered, and was, as was stated, warranted by the defendant to be sound, except as respected the kick in question. It appeared, however, that on the horse being taken to Manchester he was found to have the stringhalt, and the plaintiff accordingly wrote to the defendant, saying that the horse had the "wilrem-haunch" (as the witnesses called it), or stringhalt; that he was therefore unsound, and that the plaintiff insisted upon his being taken back. The defendant's letter in reply said, that he was astonished at the plaintiff making this complaint; that the latter had noticed the "click" in his leg at the time of the sale, and that it was then admitted the horse was so affected, but that it was stated that the leg was stiffer in consequence of the kick. After some farther correspondence, the horse was sold on account of the defendant, and the present action was brought.

A number of witnesses were examined to shew that the horse when taken to Manchester was found to be affected with stringhalt. It was likewise stated that he was then also suffering from spavin, having two bony excrescences on the hock, which it was said arose from that disease. Spavin, it was said, arose from inflammatory

action, finally inducing a deposition of bone, which interfered with the action of the muscles, causing lameness; and this spavin, it was said, must have been of such standing as clearly to have been in existence when the horse was sold.

The witnesses for the plaintiff also stated that the effect of the "wilrem-haunch" was to cause the horse to be sooner fatigued in consequence of the excessive action of the limb so affected. It was an affection of the nerve causing a spasmodic action in the flexor muscles, and, in the opinion of the witnesses, was an unsoundness, inasmuch as it impaired the power of the horse, and rendered him incapable of performing the work which in other circumstances he could have performed.

Mr. James, for the defence, contended that, upon the evidence adduced for the plaintiff, it was clear that the question of spavin was a mere after-thought. In the letters from the plaintiff to the defendant nothing of the horse being spavined was stated. The stringhalt, or "wilrem-haunch," was the only thing spoken of; and any symptom of the former disease might readily have arisen between the time when the horse was sold and that at which the witnesses had examined him.

A number of witnesses were called whose testimony traced the horse up to the time when he was sold to the plaintiff, and who stated that at that time he had no appearance of spavin. It was admitted he was slightly affected with stringhalt, but this, the witnesses stated, they did not consider an unsoundness.

His lordship in summing up said, he should first leave to the jury the question respecting the stringhalt with which it was admitted the horse was affected. As to that, the question for the jury to decide would be, whether it was a disease the natural effect of which would be to impair his natural usefulness.

The jury found this in the affirmative.

Verdict for the plaintiff—Damages £25.

The Times.

Collins *v.* Newstead.

This was a Yorkshire horse cause, brought on for trial at Guildford, August 3, 1846. The plaintiff is an extensive horse-dealer in Lambeth, Surrey. The defendant is a farmer, residing at Farlington, Yorkshire. The question was the soundness or unsoundness of a chestnut mare, sold by Newstead to Collins, at Malton fair, on the 1st of April last. The warranty was admitted. The

plaintiff had retained the mare in his hands without notice of the alleged unsoundness from the 1st till the 28th of April, and called a number of veterinary surgeons for the purpose of shewing that the mare must have been unsound on the day she was sold. Mr. Spooner, the Professor of horse anatomy at the London Veterinary College, who examined the mare on the 28th of May, underwent a long examination upon this point; he endeavouring to shew that the lameness was caused by chronic disease of the navicular joint of the fore feet, and giving his opinion to be that such disease existed before the 1st of April. During the examination, this gentleman stated that the symptoms of navicular lameness were conjectural. His opinions were supported by Mr. Mavor and Mr. Nice, two veterinary surgeons resident in London. These gentlemen examined the animal respectively on the 6th and 29th of May. To meet this evidence, witnesses were called on the part of the defendant, who swore positively to the soundness of the mare from her birth to the day when she was sold to Collins; and, in opposition to the surgical opinions expressed by Messrs. Spooner, Mavor, and Nice, as to the day on which the unsoundness (now apparent and admitted) had commenced, the defendant's counsel called Mr. Gabriel, of Rolls-buildings, London, and Mr. W. A. Cherry, of Camomile-street, Bishopsgate-street, London (two eminent practical veterinary surgeons), who explained the fallacious nature of the professional evidence given on the part of the plaintiff, and stated it to be their opinion that the lameness of the mare was attributable to causes of much more recent date than the 1st of April last. They also shewed that the mare in stepping out rested the back part of her fore feet upon the ground, whereas, if the cause of lameness had been in the navicular joint, she would have gone on her toes. This view of the case was supported by Mr. Harding (a veterinary surgeon in extensive practice in the county of Surrey), and the jury asked the judge (Baron Parke) to permit them to go in a body to inspect the mare. His lordship acceded to this request, and the mare was produced and trotted out in the presence of the jury, the gentlemen of the long robe, and a crowd of spectators. The addresses of counsel, and the examination of witnesses, occupied the court until nine o'clock in the evening; about which hour his lordship commenced a most impartial and luminous summing up, which concluded about eleven o'clock, when the jury, without leaving the box, found a verdict for the defendant.—*York Herald.*

Extracts from Domestic & Foreign Journals, Veterinary, Medical, Agricultural, Sporting, &c.

An Essay on Chronic Podotrocholitis.

By Dr. Brauell, *Professor at the University of Kasan.*

[Continued from page 416.]

Diagnostic.—The special characteristics of chronic podotrocholitis present it to us as an essential disease peculiar to the trochlea of the foot, and distinct from all other affections attacking that part. It is well known that the trochlea is subject to numerous morbid alterations, besides the one that now occupies our attention: acute inflammation of the organs contained in the hoof; partial phlogosis of the neighbouring ones, and fractures of the coffin bone; all which accidents re-act upon the trochlea, producing various modifications in it. The same effect is produced by suppurative affections, the pus from which diffuses itself through the whole structure, and arrives at this part; also by nails picked up, which pass through the flexor tendon, &c. Fractures of the navicular bone are not unfrequent. The fractured bone separates itself, as has been observed by Vatel, from the parts to which it was united, and is discharged along with the secretion. Sometimes it contracts an adhesion with the os pedis, or with that and the coronet bone, so that the three separate bones become confounded in one; or the flexor tendon is ruptured above its insertion into the coffin bone, &c. These various affections should be carefully distinguished from chronic podotrocholitis, if we would not throw the pathology and therapeutics of inflammation of the trochlea into endless disorder and confusion. A comparison of those affections which have their seat in the same region as podotrocholitis, shews us that there are symptoms and appearances by means of which we may succeed in establishing a distinctive diagnosis. I shall pass in silence over those diseases whose diagnostics present no difficulties, and confine myself exclusively to those with regard to which there may be a doubt, or which may lead to error; of such are—fracture of the coffin bone, rupture of the flexor tendon, inflammation of the sesamoids, undeveloped exostosis and windgalls of the cannon bone and tendon.

I.—FRACTURE OF THE COFFIN BONE.

This is distinguished from podotrocholitis by very evident and continuous lameness. The strong pulsation of the lateral arteries may be perceived very shortly, if not immediately, after the accident; there is also a degree of swelling and heat round about the coronet. These symptoms, added to the increased temperature of the hoof, either do not present themselves at all in podotrocholitis, or only become perceptible when they have existed for some considerable time. Compression of the sole, and of the wall of the hoof, will sometimes, but not always, produce pain in cases of fracture.

II.—RUPTURE OF THE FLEXOR TENDON.

A great degree of lameness, accompanied with pulsation of the lateral arteries—a painful swelling, fluctuating or œdematous, taking its rise above and along the tendon—the slight degree of tension of the tendon; all these are characteristics which render mistake impossible.

III.—INCIPIENT RINGBONE.

When a calcareous mass is deposited around the articulation of the coronet bone, the senses of sight and touch will prevent all error. If the exostosis is only in its birth, and nothing but inflammation is yet apparent, the two diseases may be the more easily confounded, from the circumstance of the bony deposit not being yet evident, and the lameness which accompanies this morbid process differing but slightly from that induced by podotrocholitis. The more intense lameness occasioned by ringbone, the heat round the coronet joint, if compared with the negative signs furnished by the symptomatology of podotrocholitis, will insure a just diagnostic.

IV.—INFLAMMATION OF THE TROCHLEA OF THE FETLOCK.

I am not aware that any description has hitherto been given of this affection, which, as regards its nature and the form which it assumes, exactly resembles chronic podotrocholitis. An inflammation, slow in its progress, and of a chronic nature, attacks the sesamoid bones: caries, which begins by invading the superior circumference of these bones, is the ordinary consequence of this. In other cases, the inflammation has its beginning in bursa mucosa;

thence it passes the flexor tendons, and from them reaches the sesamoid bones, which latter soon become carious. In whichever of these organs it be that the inflammation first arises, the fibres of the perforans, and sometimes those of the perforatus also, become detached, as in podotrocholitis, throughout the whole of the surface in contact with the large sesamoid bones: sooner or later this effect of the disease is inevitable. In consequence, the tendons contract an adherence to each other; the bursa mucosa, the synovial capsule, the ligaments, &c. become thickened and indurated*.

This disease, like podotrocholitis, is slow in its progress: the lameness accompanying each is developed by similar anormal movements; hence it is easy to confound these two affections. The way to distinguish them is to take into account the local symptoms. At the commencement of inflammation of the sesamoid trochlea, the heat is concentrated either on the posterior surface of the pastern, or round about the articulation. If the foot be lifted, and that portion of the tendons covering the large sesamoid bones are firmly compressed, while at the same time the pastern is alternately flexed and extended, the animal will evince evident pain. The alterations of the bursæ mucosæ of the synovial capsule, and of the ligaments in the ulterior stages of the disease, leave no room for further uncertainty.

V.—EXOSTOSIS OF THE CANNON BONE AND WINDGALLS OF THE TENDON.

During the development of the disease, before the formation of those tumours which subsequently characterise the pathological lesions of which we are now speaking, exostosis of the cannon bone and windgalls of the tendon, have, as far as regards the nature of the lameness, considerable analogy with podotrocholitis. Slow of formation, these lesions escape observation for a long time, and present a singularly complicated diagnostic.

VI.—NEUROMES.

These tumours of the nerves, which Rigot† has the merit of having first pointed out, are the result of local inflammation accompanied

* I met with one case where the caries of the large sesamoid bones presented deep holes: they were likewise united with the posterior surface of the cannon bone, by means of a bony exudation. The horse knuckled over to that degree that the articular surface of the metacarpal had lost all its relations with that of the pastern bone; it protruded over this latter, and supported itself against the synovial capsule, which was thickened and indurated.

† Recueil de Médecine Vétérinaire, vol. vi, p. 624.

with exudation and the deposition of a white hard matter between the nervous fibres. This scirrhous tumour, as it has been termed by Rigot, envelopes and compresses the nerve, easily escapes being seen, and, on account of its chronic progress, the lameness caused by it may easily be confounded with that arising from podotrocholitis. The distinction between the two is chiefly based on a small circumscribed tumour which is to be found on the course of the nerves, along the cannon bone: compression of this tumour provokes for the moment an intense degree of pain, and it is thus that we are enabled to detect the seat of the disease*.

VII.—SHOULDER LAMENESS.

Among all the various diseases of the fore extremities, there are none which render the diagnostic of podotrocholitis more obscure than those lamenesses which arise in the shoulder. The disease, that actually exists in the foot, is too often only looked for in the shoulder. In the time of the farriers of old, the shoulder was, as Renner ably expresses it, the *asylum ignorantiæ*, if the seat of a lameness could not be discovered elsewhere; and at the present day, it must be confessed, that it is sought for, and thought to be discovered, where it does not exist. The shoulder, although very innocent, patiently endures all the tortures inflicted upon it through the medium of a variety of more or less potent agents,

* Tumours on the nerves frequently succeed neurotomy, and chiefly when, after the lesion of a vessel, a bandage is applied, and the hemorrhage gives rise to a large clot.

In Lithuania I have seen a great number of these tumours, below the pastern joint, arising from blood-letting from the lateral veins.

Although the law forbids empiricism, there may be met with, throughout the whole of Russia, the capitals not excepted, disbanded soldiers, Zingani or gipsies, vagabonds and others of a similar class, who, under the appellation of *Konowal*, publicly practise veterinary surgery, without being interfered with by the authorities. Among other absurd practices, they have one which consists in immediately opening the lateral veins of every horse that goes lame. The Zingani make use of an instrument for this purpose, which they fabricate themselves. They flatten a piece of iron wire at one end, and give it an edge by sharpening it upon the first stone they meet with, and afterwards curve it near to the edge thus whetted. With this new species of fleam, which more resembles a scraper, and the blade of which is always jagged, the operators are obliged to strike repeated blows before they can succeed in drawing blood. In their perfect ignorance they are quite satisfied if the instrument is in the neighbourhood of the vein, and they respect neither tendons, ligaments, or nerves. This rough treatment induces *neuromes*, whence result violent and obstinate lamenesses. If, as often happens, the lateral cartilages of the foot are injured, we find ossification of them the result.

while the original cause of the lameness actually exists in the trochlea of the foot. This error arises from the ignorance of practitioners who have not studied the navicular disease, the obscure physiognomy of the affection; and, above all, the confusion which prevails in the symptomatology of "lame in the shoulder," which has been transformed into a veritable tower of Babel.

On comparing together the different authors who have given an account of the symptoms characterising lamenesses of the shoulder, we find a chaos, which, so far from becoming arranged by the progress of time, only appears to have become the more confused. Some point out as a pathognomonical symptom the abduction of the limb in action, the effect of a relaxation of the muscles uniting the shoulder to the breast: the action of abduction is also constantly observable in podotrocholitis. Others, on the contrary, pretend that this position is attributable to a contraction of the muscles drawing back the scapula. The latter have recourse to emollients, the former to excitants, and both relate their instances of cure. Again, there are others who regard the contracted action of the shoulder as an expression of pain existing in the levator humeri muscle; but they are ignorant that this phenomenon likewise appertains to chronic podotrocholitis; and they do not reflect of how little importance the abovementioned muscle is in motion of the shoulder. I have cut through it, and the movements of the shoulder remained as free as ever*. The flexion of the head and chest during progression is also regarded as an invariable symptom of shoulder-lameness by some practitioners; while others consider it to be a positive sign of the existence of an affection of the levator humeri muscle. Both parties appear to have lost sight of the fact, that the flexor movements of the head and neck are observable in other lamenesses besides those of the shoulder,—that it is, in fact, inseparable from all such as are at all intense. In point of fact, the head and neck are accessory levers, destined by nature to assist in the progression of the body; they ought, con-

* I have also cut the biceps of the arm, and after the operation I remarked a sensible difference in the position and motion of the limb. The angle formed by the shoulder with the arm is much less open than that of the opposite extremity; while, on the other hand, the angle of the arm and the forearm was much more developed. In walking, the limb operated upon was very quickly raised after having been rested on: the animal stumbled frequently. In retrograde movements this limb was quite as easily displaced as the opposite one, but it embraced a much greater extent of ground: when in repose it constantly assumed a direction from above downwards and from before backwards. On the second or third day, when the inflammation had fully declared itself, these symptoms became more evident; the limb was dragged in circles. It is certain that this effect is attributable not to the inactivity of the biceps, but to the tumefaction of the surrounding parts.

sequently, to redouble their action from the moment that the power of any one extremity, and especially of a fore limb, has become diminished, or totally paralyzed, no matter what the cause be. The "nodding of the head," as this movement is vulgarly called, has no other signification than that of a displacement of the centre of gravity: according to the laws of mechanics, the lever throws the weight backwards, in order to exempt the sound leg from it, and render it fitted for progression. Animals instinctively spare the suffering organ. All this is lost sight of by those who regard nodding flexions of the head as indications of pain in the levator humeri muscle.

But I should be diverging too widely from my subject were I to enter into a critical review of all the symptomatology of shoulder-lameness: they who will take the pains to compare together the various authors who have treated of it, will soon convince themselves that this part of the pathology of this disease is a perfect chaos enveloped in thick darkness. The most flagrant contradictions occur at every step; and these have become imperceptibly ranked, *per fas et nefas*, among the characteristic signs of the disorder; and, on account of the value accorded to them, appear to have acquired a certain prescriptive right. The phrase "going wide," generally applied to lamenesses of the shoulder, may have had a large share in producing this: different affections have been comprised under one generic denomination; phenomena strange to them, or which they only have in common with other diseases, have been attributed to them as pathognomonical characteristics. The indifference and carelessness with which the examination of these doubtful cases have too often been conducted must inevitably lead to similar errors.

When a lame horse is brought to a veterinary surgeon, he does not, until he has made a manual examination, draw any conclusion from the positive symptoms furnished by the altered action of the animal; he does not at once set down the lameness to the score of shoulder-shotten. If, after carefully examining the whole limb, he is unable elsewhere to detect any indications that will guide him to the seat of disease, he unites these negative symptoms, and they appear to him sufficient to diagnosticate a shoulder-lameness. He has the horse trotted once more, and cheats himself into the belief that the abnormal action of the limb leaves no doubt as to the existence of disease in the shoulder. He compresses and pinches the shoulder, and, unless the animal stands as motionless as a post, the verdict is pronounced: the unfortunate shoulder is condemned, notwithstanding its innocence, because no accusation can be brought against any other part.

In such a mode of proceeding it cannot be wondered at that

numerous symptoms altogether distinct from those of sprain, or not exclusively belonging of it, have glided into the symptomatology of this affection; and have been continued there as mathematically demonstrated truths; and thus blindly confiding in their infallibility, chronic podotrocholitis is declared to be a shoulder disease. He who seeks for a thing with preconceived notions respecting it, will inevitably discover it. Once, a head was discovered composed of two *tentaculæ* garnished with two lips, armed with hooks; the retractor motion of the tentaculæ was observed, and the act of suction on the stalk of a grape taken for a living worm, which had for some time the honour of figuring among a collection of entozoaires. Why, then, may not a disease be located in the shoulder, the actual seat of which is three feet some odd inches lower down, in the trochlea of the foot? I have seen even a more striking instance of this mania for transposing morbid affections. An individual, who was fully persuaded that he was a very learned veterinarian, took the uncertain pace of *immobilité* for rheumatism of the extremities. It certainly may be urged against me, that the course of practice hitherto followed, which consists in attributing all obscure lamenesses to the shoulder, has been crowned with success; and hence the deduction is drawn that they were not deceived in their diagnostic; but if the *post hoc ergo propter hoc* is a false conclusion, it is assuredly so in this case. Even the therapeutics of shoulder lameness furnish us with proofs. Have not means the most opposite, irrational, and repulsive to common sense, been prescribed as modes of cure, from times the most remote up to the present day? And, nevertheless, they have been recommended as efficacious, and sanctioned by experience. Caton gives, under the head of luxations, unintelligible formulæ for conjurations; and for other articular affections he had recourse to the cabbage, and obtained cures. The *Konowal* encircles the foot of a horse attacked with shoulder-lameness with a cord having nine knots in it, and garnishes this with twenty-one blades of straw; and with this strange remedy he easily, rapidly, and agreeably effects a cure,—God only knows how.

Experience has sufficiently proved to me how deceitful are the *juvantia et nocentia* to found a diagnostic upon, and how often shoulder-lameness has been taken for chronic podotrocholitis. I have myself made this mistake, I freely admit. Before observation had familiarized me with chronic inflammation of the foot, I considered the horses to be lame in the shoulder in many cases where the disease was seated in the trochlea, and a treatment applied to that part supposed to be suffering effected a cure. One horse in particular presented all the symptoms peculiar to shoulder-lameness, those which are considered as characteristic of it, such as restricted action of the shoulder, flexion of the head, atrophy of the muscles,

&c. Nor was I alone in seeking for the lameness in the shoulder: the old practitioner would have shared my opinion. The employment of irritating frictions and a period of total rest, having brought the movements to their natural state, seemed to justify this diagnostic, though subsequent events proved it to be false. The animal experienced several relapses, and three times did the above-mentioned means re-establish him. The lameness re-appeared for the fourth time, and I then had recourse to neurotomy. After the operation, the animal rested the limb firmly on the ground. A fresh relapse having manifested itself six months afterwards, the animal was destroyed. On post-mortem examination, the shoulder presented no abnormal appearances, nor could any trace of old or recent affection be discovered there; but podotrocholitis had produced some extraordinary disease in the trochlea. Since then I have frequently performed the operation of neurotomy on horses that had been treated by other veterinary surgeons for shoulder-lameness, and among the numbers were several that had been rubbed with irritating lotions or ointments, and occasionally had recovered their soundness of action. Section of the plantar nerves always removed the lameness. During my residence at Wilna, I bought a great number of horses said to be suffering from shoulder-lameness, and, in order to convince myself, had them destroyed, and proceeded immediately to make a post-mortem examination of parts. Notwithstanding the most minute examination, I was unable to detect any morbid alteration of the supposed diseased shoulders, but all, on the contrary, shewed traces of more or less serious disease of the trochlea of the foot. Far be it from me to conclude from these facts that shoulder-lameness should be erased from our nosological catalogue: pathological anatomy would immediately convict me of error if I did so; for it has afforded us practical proof of the existence of various diseases in the shoulder, of all of which lameness is a natural consequence; but my observations enable me to lay it down as a principle that shoulder-lameness is not so frequent as is generally supposed; and on this point I fully agree with Lafosse*. Where no tangible alterations of the shoulder can be discovered, shoulder-lameness being diagnosticated in an empirical manner, the evil in general has its seat in the trochlea of the foot; hence it arrives, that to those who have studied podotrocholitis under all its phases, shoulder-lameness becomes a rare disease; but the less they know of the former, the more inclined are they to direct their attention to the shoulder exclusively. In England, these assumed

* Guide du Maréchal, *Avignon*, 1803, p. 228:—"Sprains are not of so frequent occurrence as they are generally said to be. A horse is often said to be sprained when the disease is in the foot or the lower articulations of the leg. In a word, there is no sprain without apparent and sensible swelling.

cases have become much less frequent since Turner has caused the navicular disease to be better understood: previously, all fell into the same errors, and every lameness, the seat of which was obscure and doubtful, was attributed to the shoulder; but now the trochlea of the foot is carefully examined, and neurotomy often relieves a horse of a lameness for which he would formerly have been tortured by applications to the shoulder. It is thus that the frequency of the navicular disease in England may be explained: it would be the same in other countries if sound judgment, not the mere caprice of custom, presided over the examinations of scientific men.

From what has already been said, it appears that shoulder-lameness is the affection with which podotrocholitis is oftenest confounded; we must, therefore, fix upon some certain criteria by which the two diseases may be distinguished the one from the other. So long as the *rudis indigestaque moles* of the symptomatology of shoulder-lameness remains, so long will it be a Herculean task to cleanse this Augean stable, and we must not hope to be able to make use of the phenomena attributed to lameness in the shoulder for any diagnostical purpose; for, if we did, we should justly draw upon ourselves the reproach of having propagated error. Under such circumstances I am compelled to have recourse to accessory circumstances in order to fill up this gap, and serve as guides to our better judgment. In fact, chronic podotrocholitis does not manifest itself evidently or palpably: from its seat it is concealed from the direct cognizance of the senses, and its diagnostic thus becomes the more difficult. Everywhere, and in all cases, the history as well as the whole of the symptoms must be collected to remove all doubts.

If the position of the limb in the stable, the abnormal movements observed in the various paces, some local indications, the negative and anamnestic phenomena, lead us to suspect the existence of podotrocholitis, the following proceeding may be adopted in order to arrive at a certainty. The shoe should be taken off the affected foot, and the sole and frog pared out and thinned as much as possible; and when it has been ascertained that the subjacent tissues are not in pain, a permanent pressure should be maintained on the frog by means of a bar shoe, the cross bar of which has been provided with a triangular stuffing which presses upon its branches. Podotrocholitis will betray itself by a greater degree of lameness*; but the effect of this compression is not always immediate, it depends upon the resistance offered by the horn; it therefore

* It may be objected to this practice, that, by rendering the lameness more intense, it acts in concert with the cause; the evil, however, resulting from it is not to be compared with that which is occasioned when, before having established a perfect diagnostic, some course of treatment is resorted to at hazard.

becomes absolutely necessary to leave the bar shoe on, thus placed, for a greater or less period of time, and carefully to watch the animal, in order to detect the slightest variations that may become observable in the abnormal motions of the diseased limb. In order to gain time, and not trust entirely to expectation, the hoof may be enveloped in a cataplasm of clay, which is without its use, supposing even the trochlea of the foot remains unaffected.

Instead of the bar shoe, a pair of pincers are made use of, having bites of unequal length to perform the office of a sound. The pincers are fashioned in such a way that one of the bites supports itself against the wall, while the other, presenting a surface of half an inch in width, perpendicularly compresses the frog at the extremity of the cleft, at the point where its sides re-unite. During this examination, the fetlock is kept in extension; and from the power acting upon the branches of the pincers becoming gradually stronger and more continuous, a horse attacked with podotrocholitis experiences much pain. This mode of examination often proves inefficacious, notwithstanding the disease is present. Too hard a sole, or a hard and contracted frog, are obstacles which prevent the action of the pincers being transmitted to the affected part, and in such cases the bar shoe is preferable. Sticker has invented an instrument to which the name of *podometre** has been given: it serves to measure the hoof, and the dimensions of the horny box are taken as a basis in order to determine the existence of podotrocholitis. The instrument answers the first purpose; but it has no diagnostical value, for, in general, the diameter of the hoof has undergone no alteration in consequence of the disease, and, where it does present any contraction, disease of the trochlea is not the primary cause of it.

I shall observe, lastly, that we must not be in too great a hurry to diagnosticate podotrocholitis, nor flatter ourselves that we have ascertained its existence on a first examination. I cannot sufficiently recommend caution and circumspection: these qualities lucidly distinguish the well-informed veterinarian from the superficial practitioner, who talks much and reflects but little.

* Magazin für die gesammte Thierheilkunde herausgegeben von Dr. Gurlt & Dr. Hertwig, vol. ii, part 1.

[To be continued.]

MISCELLANEA.

Canine Madness.

To the Editor of the "Shrewsbury Chronicle."

Sir,—From a correspondence in a recent number, it appears that public attention has lately been occupied with suggestions for the prevention of that dreadful malady, hydrophobia in man, when bitten by the rabid dog. I concur in the importance of circulating useful information on the subject, and would cheerfully contribute to assist in lessening the fears and in alleviating the sufferings of a disease the most terrible that can lord its dominion over man. In hydrophobia the patient does not, as it is benevolently provided for us in most of the serious afflictions we inherit, become insensible in mind; neither delirium nor repose come to aid him by a happy oblivion of what he may have suffered or may expect, but in him the mental anguish is even more intense; the mind, in full vigour, struggles desperately with suffering and despair, and memory and consciousness bring the full measure of mental and bodily agony. Willingly would the spirit leave its habitation, but "whither shall I flee?"—alas, it can only be from suffering to despair, from misery to wretchedness! Even hope, the last blessing, is gone from him. Therefore, while I admit the value of your contributions as to the necessity of the immediate excision and cauterization of the bitten part, yet I consider it even more important, in a public point of view, to render more popularly known the actual symptoms of the disease as seen in the dog—the animal to which seems to be deputed the desperate mission of propagating it to man and beast.

Although knowledge, medical science particularly, is so extensively disseminated, there is hardly any subject on which more ignorance exists than that of canine madness. It is the source of much distress of mind to those who have ever been bitten by a dog; for there is a general opinion that, should the creature go mad at any subsequent period, yet perfectly free from disease at the time, the same dreadful fate awaits the bitten person. This is a gross error; for unless the animal is rabid when it inflicts the bite, it is impossible for hydrophobia to arise. In man, it cannot appear without inoculation from the bite or poison of a rabid animal. But, in the dog, it occurs from the bite of a rabid cat or dog, or produces itself in him spontaneously. It was demon-

strated beyond doubt by Mr. Rossi that dogs, previously healthy, could communicate the disease when enraged or irritated to a high degree. Mr. Gillman cites a case in which it originated in a dog constantly chained apart from all possible intercourse: and although there is no evidence satisfactorily to shew that either hunger or thirst, either excessive cold or heat, putrid food or water, can give rise to canine madness, yet carnivorous animals seem alone, or mostly, subject to it; and the disease has, probably, originated from causes connected with climate and food, singly or combined. Volney tells us the disease is unknown in Egypt and Syria. At the Cape, where, in the hot weather, dogs live on the most putrid food, and in Paraguay, where the heat and want of water frequently destroy beasts of every description, it is also unknown.

It was for some time supposed that the disease could not be communicated from man; but Majendie and Bresslet affected a dog with rabies by inoculating with the saliva of a man under that disease. As it is necessary that every person should know the principal symptoms of the disease in the dog, for his own protection, the following most leading ones will be found trustworthy, being the result of the most accurate observers, and of the experience of myself, from several opportunities of witnessing the disease. But in man, from a case I saw when in my hospital studies, there is scarcely a symptom in common with the canine disease, and is hardly to be recognised by the same rules. In the dog, the owner will first observe a strangeness, an unaccustomed manner, a sluggish, dreamy, heavy look, eyes glazed; he moves about, uncertain when, or for what—picks up any little things in his way, the straws of his bed, or picks his mat; irritability of temper, more vexed than savage; if a stick is held over him, he perhaps gets into a fury. Some lick the anus of others, and form attachment to young puppies or kittens; the nose is in some very cold, and they are fond of licking the grate and fire-irons: they eat their own excrement, and drink their own water, lapping it frequently. Antipathies are common with them as in human madness—they form attachments, and as strong dislikes. The cat receives the chief hatred, or a strange dog is an object of aversion. For a time they respect their old companions, but at length attack them. By this time the disease is so far advanced, and the irritability so great, that he attacks all animals, and man himself, without provocation, but is generally harmless, unless molested. At this stage he usually leaves his home, and, impelled by some irresistible impulse, sallies forth the messenger of terror and death. He, perhaps, has now lost the use of his hind limbs from inflammation; his eyes are gorged with blood; the tenacious saliva adheres to his

pendant jaw. As he goes along, he laps eagerly at every water-pool, and snaps at whatever he meets. He does not exactly attack his object, but gives it a bite in passing. He is seldom savage unless persecuted; but every movement is petulant and peevish in the earlier stage: like a spoiled child, nothing is right. In hounds and kennelled dogs the savage character is more developed, which was the principal symptom noted by the celebrated Mr. Meynell in his own kennel.

I am disposed to think the furious savageness more owing to the treatment they receive when suspected, than from any disposition the disease excites in them; for the cry of "mad dog" is as terrible to them as to their unrelenting pursuers. In lap-dogs and ladies' favourites, gentleness prevails remarkably to the last, and many times the delicate hand of the fair mistress fondles unconsciously her little pet in a rabid state, without suspecting her peril. If observed closely, they, rather than bite, take the hand or foot in the mouth, and play with it, but with a sullen awkwardness: they cannot be controlled as usual, nor can they be frightened; they are indifferent to all; a perverse, petulant, and dogged disposition, with a treacherous insincerity even to the best friend, possesses them. But an unerring symptom, which, once heard, cannot be forgotten, is the noise they frequently utter;—it is a peculiar melancholy sharp howl—a sort of plaintive cry, as if caused by inward pain or severe grief: the head is held up in the air, and the heavy slow tongue of the hound is given with a sort of dismal moan: this, with the anxious eye bloodshot or diffused with matter, the snapping at objects which they fancy before them from impaired vision, and the anxious countenance, frothing mouth, and pendant jaw, are certain indications of rabies in its most dreaded form. To kill him is merciful.

The above symptoms, if carefully noted, will lead the owner at once to detect the disease before mischief is done; and the quiet and pacific manner of his dog should give him reason to be guarded, for the fatal snap may be given when otherwise least expected. In almost every stage, unless persecuted, he exhibits this quietude. It is a vulgar notion that mad dogs cannot drink water: not only do they drink, but the parched tongue urges them to seek every chance of getting water. It is true, fluids are badly swallowed, on account of a peculiar or spasmodic affection of the constrictor and pharyngeal muscles used in the act of deglutition, which is the case in the human hydrophobia, else they drink with avidity in all stages of madness. Also that the worm under the tongue of the dog is the cause of the disease in that animal is equally an error. The frenum, which is a duplicature of membrane holding down the tongue to prevent its being swallowed, is

mistaken for a worm, which, instead of being injurious to the animal, is necessary to his life. The frenum is the part mothers are so anxious to have divided in their children when commonly called tongue-tied—generally speaking, a very foolish operation.

A word *apropos:* I was formerly resident surgeon to a London hospital, and during that time I had to inspect many hundreds of children, yet there only occurred two cases requiring the operation, and, if left to themselves, they would never have been inconvenienced, nor have excited notice. This ranks with the popular prejudice that has invented a worm beneath the dog's tongue for the seat of rabies. While it is our duty to protect ourselves from a disease so frightful in suffering, and certain in termination, nevertheless we should not suppose every casual illness madness, for it is probable that hydrophobia does not occur so often to the dog as the various shadings of insanity afflict the human species; but, being domesticated with us, he takes on him all our diseases;—colds and fevers, and indigestion, all afflict him. But with all his faults he is our trusty friend;—he neither babbles his services to neighbours, nor deserts us when his aid is most desired, but, unshaken in attachment, unimpeachable in fidelity, with courage and endurance increasing as required by his master, alike the rich man's and the poor man's companion, he claims and should receive our kindest treatment and regard—in disease, as in health.

Remaining, Sir,

Your's most obediently,

O——S.

Burwarton, near Bridgnorth, Oct. 31, 1842.

Extraordinary Fecundity.

A few days since, a sheep belonging to Mr. Thomas Honeyman, of the Grange, near Sawley, brought him five lambs, all alive, and all likely to do well, with a little assistance from art.—*Nottingham Journal.*

Veterinary Ruralities.

The following is the sign of a village Caleb Quotem on the road between Birmingham and Oldbury:—"William Wright, beast, leash, and farrier, horse and cow, dranches, koinds and, oyles of, various, koinds, and medicines, sold here."—*Supplement to the Liverpool Mercury, Oct.* 17, 1845.

The Army Veterinary Department.

ACCORDING TO A NEW

"Warrant regulating the Grants of Unattached Pay, Retired Full Pay, and Half Pay,"

Dated 1st May, 1846,

Veterinary surgeons of the army, by the 46th, 47th, and 48th articles of the said warrant, have their rates of half pay and retirement regulated as follows:—

"The half pay to be granted to a veterinary surgeon shall be regulated by his service on full pay, according to the following scale:—

"If he shall be reduced before he has completed five years' service on full pay, he shall be granted a *temporary* rate for three years only, and be subject to a recall to employment during that period . . . . . 3s. 6d. per diem.

If above 5 years' service as a veterinary surgeon	5	0	"
If above 10 years' service, ditto . . .	6	0	"
If above 15 years' service, ditto . . .	7	0	"
If above 20 years' service, ditto . . .	8	0	"
If above 25 years' service, ditto . . .	10	0	"
If above 30 years' service, ditto . . .	12	0	"

"No veterinary surgeon shall be entitled to claim retirement after any period of service under 25 years' duration, upon the ground of ill health contracted in our service, unless such unfitness be supported by medical certificates, to the satisfaction of the Commander-in-Chief of our Forces, nor unless such retirement shall be recommended by him to our Secretary at War.

"Every veterinary surgeon who may have served upon full pay for twenty-five years and upwards, or who may have served for twenty years, provided he have passed five years on foreign stations, shall have the right to retire upon half pay at the rates assigned to those periods of service in the 46th article of this warrant."

"Given at our Court at Buckingham Palace, this 1st of May, 1846, in the Ninth Year of our Reign. By Her Majesty's command.

"Sidney Herbert."

The following has been for several years on the back panel of a gig belonging to a farrier in the neighbourhood of Whitchurch, Salop:—"Daniel Lanceley, vetenery surgon, Malpas, Cheshire."

THE

VETERINARIAN.

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THE COMPLETE HISTORY OF A CASE OF NASAL GLEET,

FORMERLY, AND BY SOME EVEN AT THE PRESENT DAY, CALLED "GLANDERS."

By WILLIAM PERCIVALL, *M.R.C.S. and V.S.*

THERE is no genus of disease which taxes the judgment of the veterinary surgeon more vexatiously than glanders in those forms and stages in which it is so closely resembled by other diseases in certain forms and stages, that to draw the line of demarcation between them is no less vitally important to the proprietor of the suspected horse than it is difficult and harassing to the veterinary practitioner he may consult. That some scores of horses, not to say hundreds, have in times past been condemned to slaughter on account of (supposed) "glanders," which were in truth not glandered at all, no veterinarian of age and experience will, I am quite sure, feel disposed to deny. The day, however, has at length arrived, when fatal error of this description, if not altogether correctible by discrimination and caution, is reduced to comparatively rare occurrence.

The case I am going to relate, simulant as it is of chronic glanders, though as a whole it may prove instructive to the young veterinarian, will have no other attraction for the old practitioner save what may be afforded by the lengthiness and completeness of its history, and by its terminal issue; veterinary surgeons in the army being enabled oftener than private practitioners to commence at the beginning, and end their account with the final wind-up of the case.

C 15, a troop black gelding, seven years of age, was admitted into infirmary stables, in the Regent's Park Barracks, on the 17th

of April 1845, on account of an attack of the influenza, at the time prevalent in the metropolis. He was a slack-backed, large horse, without breeding, and, although in fat condition at the time, had the disease in a mild form. Soreness of the throat, discharge from the nose, slight fever, cough, &c. continued on him for a fortnight, when the discharge appeared to have nearly or quite ceased from the off nostril, but to have augmented and settled upon the near one. There was also now perceptible a slight tumefaction of the submaxillary lymphatic gland on the near side.

As soon as all symptoms of the influenza had departed, and the animal's appetite had become good enough to enable him by generous feeding to recover his impaired strength and condition, it was deemed advisable to change the treatment to a form better suited to the altered character of his disease, which had now degenerated into a simple gleet, confined to one nostril, of muco-purulent matter, mingled with more or less serous or aqueous fluid: the purulent, mucous, or watery ingredients predominating according to circumstances—sometimes apparent, at other times not—and the flux accompanied by more or less *fœtor*, perceptibly offensive, whenever the nose of the examiner was applied to the affected nostril of the horse. Antiphlogistics were now exchanged for remedies of a tonic and astringent nature. Steel, bark, gentian, turpentine, balsam of copaiba, cantharides, &c. were in succession administered; but without any more than temporary and uncertain benefit on the part of some, and no benefit whatever on the part of others. I adopted the exhibition of iron as recommended by Mr. James Turner, and found it a simple and effectual method of administration: the horse drank an amount of water daily containing two drachms of the sulphate of iron, and continued doing so for six weeks, consuming altogether ten ounces and a half of the salt. Towards the conclusion, it rendered him feverish, took him off his appetite, and blackened his dung-balls, but had no observable effect whatever on his nasal gleet.

It was now resolved to set aside all internal remedy, and to confine our treatment to external applications. Injections of all kinds, astringent and escharotic, were tried with various effect. Some for a short time suppressed the discharge; others increased it and altered its character. A seton was passed underneath the skin, extending from a little below the eye to the nostril of the affected side, and kept in, discharging well, for twenty-three days; with some little benefit at first, but, subsequently, with none whatever.

My next experiment was to me one of more interest and hopefulness. I felt desirous of making trial of the much-lauded creasote injection, first introduced to our notice by Dr. Elliotson.

Accordingly, I adopted the following formula, to be injected into the affected nostril morning and evening, after the cavity had been syringed several times, and thus thoroughly cleansed, with tepid water:—

℞ Creasoton. 3i
Liquor potassæ, 3ij
Aquæ distillat. ℥viij, s. a.

These injections were persisted in for a fortnight without any alteration worthy of notice, either in the quantity or quality of the discharges; though on their being remitted for a fortnight (during my absence), I found, on my return, that the gleet had degenerated from a muco-purulent flux into a trifling aqueous or serous running, and that not constant, and also, that the submaxillary enlarged gland had become considerably diminished.

Desirous that the benefit which seemed to have been conferred by the injections should be complete, after waiting a few days, I recommenced their use. Four days afterwards, however, the discharge returned as bad as ever, and the gland as suddenly resumed its usual magnitude; I, therefore, judged it prudent to leave off the injections again. It seemed to me that the *immediate* or proximate effect of the injections was, by creating irritation, and perhaps inflammation, to *augment* the nasal flux and the swollen glands; though in the end, when the irritation came to subside, both the discharge and the gland became lessened. It occurred to me at this time that the internal exhibition of creasote might possibly do good. I therefore administered it, made up with starch and meal into balls, in half-drachm doses, morning and evening. The horse took the balls regularly for a fortnight, but experienced no benefit from them; and I was unwilling to have recourse any more to the exhibition, finding that every time I did so, the flux was augmented and rendered purulent by them.

Three weeks after the discontinuance of the creasote, nothing having been done in the interval, the discharge from the nostril had become trifling, consisting merely of a little watery fluid, and that but occasional; notwithstanding fœtor was still perceptible, and there were to be felt remains of the tumefied gland. Under these circumstances, the patient, being regarded as convalescent, was fed well and regularly exercised—sweated occasionally—still being kept apart, as he had from the first been, from other horses. The unfavourable symptom remaining, was the offensive fœtor detectible on applying one's nose to his affected nostril; the other, the sound side of the patient's nose, being quite free from fœtor.

This made me at once resolve on an operation I had for some time been meditating, viz. trephining the frontal sinus of the

affected side of the head. For this purpose I had made a trephine of unusually small size, which would not include more than a circle of a quarter of an inch in diameter. With this I sawed out a piece of the near frontal bone. The removal of it was followed by a rush of air through the sinus. The animal, indeed, respired through the aperture much in the same manner as happens in tracheotomy. Clean tepid water was injected, but flowed out through the external nares as freely as it was thrown in, and as free from stain or taint, save that the first injection or two proved bloody. Clean dry feathers introduced and moved about within the sinus failed to detect any lodgment of matter. I had a leathern cap appended to the brow-band of the head-collar, to cover the aperture made by the trephine; I soon, however, found that the simplest and best means of closure was a phial cork, to fit the hole.

The morning after the operation, fœtor was as strongly and offensively perceptible as ever from the nostril; I, therefore, substituted an injection of the solution of chloride of lime in place of plain water. Before I did so, however, I once more tested the sinus by the introduction of feathers, but with no other result than before.

Finding the chloride of lime of no service I once more resorted to the creasote injection. This brought back the discharge, and in a purulent form too, as abundantly as ever; and it would now appear as if some lodgment of it took place, for the injections occasionally brought lumps or masses of muco-purulent matter away with them. I continued these injections morning and evening for eight days, and found, by them, that I had in all its copiousness and virulence completely re-established the nasal flux, and, with it, had caused fresh swelling of the submaxillary glands, the fœtor still continuing the same. It was again evident that the creasote injections, in their primary or immediate effects, were to appearances harmful, and, therefore, they were again discontinued: the only question concerning their operation being, whether or not, in their secondary or remote effects, after the irritation they had caused afresh had subsided, they did not prove beneficial.

Although, from the moment I had observed the tendency that existed in the opening made by the trephine to granulate and heal up, I had kept a phial cork pushed into it, yet were Nature's efforts so great and irresistible to close up the artificial aperture, that, although no granulations could sprout from around the margin of the aperture, they actually grew from within the cavity of the sinus in such force as quickly to form a partition abutting upon the end of the cork, and thus, in spite of cork or plug, did Nature accomplish her work and shut up the sinus. With an iron probe I broke down this partition, and thus suc-

ceeded, for two or three days longer, in syringing in my injections. By the fifteenth day, however, I was completely blocked out. Nature had made her fence of that hard callous description which was no longer penetrable by an iron probe, without using a force that might do much mischief.

At this stage of my proceedings, it appearing to me that, from the irritation and inflammation manifestly set up in the sinuses of the affected side of the head, as well as in the nasal chambers and passages, by the trephining and injecting, some change must take place in the membrane lining those sinuses and passages, and that the change might possibly be such as in the end to prove conducive to my patient's recovery, I resolved, for some time at least, to forbear all medical treatment whatever. My reader, perhaps, will think it was high time I should do so, when I inform him that now my patient had been six months in the infirmary. Abstinence from every thing tending to irritate was followed, as before, by a gradual diminution and clearing of the nasal discharges, with simultaneous lessening of the swollen glands, the fœtor continuing as before. In another month's time, however, I had the satisfaction to find that the nasal flux had disappeared altogether, that the fœtor likewise was nothing so perceptible as it had been, and that the glands had become smaller than I had known them at any former period. Two months were allowed to elapse, and my patient was, *bonâ fide*, a recovered horse: without discharge, without fœtor, without glandular enlargement, and likewise, as he all along had been, indeed—save when disordered by medicine — in excellent health and spirits, and fat and sleek in condition. Four months have now passed since my "cured" patient left the infirmary. He continues at work as sound and as able as ever he was.

Shall we say, "the case wore itself out?"—"ran itself dry?"—"that the horse would have done quite as well turned out at grass?" Be it so. I am, for my own part, really desirous that my professional brethren should form their own views as the case stands. They will permit me to think—as I have thought on occasions before—that some beneficial change was effected in the condition of the Schneiderian membrane of the affected side of the head, and to that change the happy result was ascribable. Take any view we like of it, however, the case altogether stands prominently forward to shew us what is meant when persons talk of "CURING GLANDERS."

INTUS-SUSCEPTION IN A COW.

By W. J. Arkcoll, *M.R.C.V.S., Leek, Stafford.*

The subject of this case was a four-year-old cow, belonging to Messrs. Ockenhall, near Leek. I was called in to see her on Wednesday the 2d. They had noticed her the day before, on fetching her up to be milked, running about as if in great pain; and that, on getting her to the cowhouse, they could hardly milk her. She was continually stamping and kicking at her belly, and lying down. They bled her to the extent of four quarts, and gave her one pound of Epsom salts in gruel. I was requested the next morning to see her.

The medicine had not operated. I found her in slight pain—eyes bright, with dew on her nose: she would eat nothing. Pulse but little affected. I examined her per anum, and found nothing but a little slime come away, streaked with blood. Ordered injections of warm soap and water. Gave magnes. sulph. ℔j, zingib. ℥j, crotonis xxx gr., in two quarts of gruel. I was called at three o'clock on Thursday morning, and found her no better; in more pain, indeed, and nothing had passed. Sent ol. lini. Oj, magnes. sulph. ℔ss, aloës Barbadens ℥j, crotonis xxx gr., zingib. ℥ss, nitrat. potas. ℥ss.

At 1 P.M. no better—Pulse has risen to 90. Prognosis bad. I expected some lesion had taken place, as she continually lay flat upon her belly, and, if moved, would directly resume that position. She died on Friday, at noon.

On making a post-mortem examination, every part of the inside had the aspect of health, except that about three yards from the anus eighteen inches of the intestine had run into the adjoining portion, and, of course, a great deal of inflammation had been set up around the intus-susception. The physic had acted on the stomachs. I suppose there is no accounting how the intestines got into such a position.

A FEW REMARKS ON THE USE OF SEDATIVES AND TOXICATIVES IN TETANUS.

By William Gavin, *M.R.C.V.S.*

From a query of Mr. Davies's, which appeared in your Journal of last month, viz. Would not tobacco, hellebore, *et hoc omne genus*, be always preferable, as sedatives, to opium, in cases where it is

desirable to reduce to quiet arterial action?—one might be led to infer that he considered the successful treatment of his case depended on the reduction of arterial action by the tobacco. This I may take the liberty of examining. No doubt there is great vascular action in tetanus, but I should conceive that this was the effect, not the cause, of the disease.

I remember seeing a case in *The Lancet*, where a patient was dosed with intoxicating draughts of alcohol, and, while the effect lasted, it was accompanied by a total remission of the symptoms, and quiet and refreshing slumber. This treatment was tried in a case at the Edinburgh College (where, by the way, there was a terrible ado to get the whiskey), but instead of being given by the mouth, it was, after being diluted, introduced into the jugular vein. We all know the sympathy existing between the stomach and nervous system, and this, together with the unfair trial it received, may account for its failure.

In conclusion, I should consider that opium, containing, as it does, a stimulating as well as sedative principle, ought to be, theoretically speaking, superior to tobacco, hellebore, *et hoc omne genus*, notwithstanding Mr. Davies's successful case; and the more so, in my opinion, as I have not found opium to possess the same tendency in the lower animals to produce the febrile excitement so often sequent on its exhibition to the human being.

FARTHER REMARKS ON BREECH PRESENTATION IN COWS.

By J. Horsburgh, *M.R.C.V.S., Dalkeith.*

In your last Number there is a letter from Mr. Barlow, making some remarks on the cases of breech presentation in difficult parturition in cows, published in your Number for August, p. 434; and as that paper was by me*, I beg to make a few remarks on the additional means of delivery as furnished by him. Also (as my method of operating seems not to be properly understood by Mr. B.) to furnish such information as may render amputation of the posterior extremities at the hip-joint in these cases a matter of very little difficulty.

In the first part of his remarks there seems to be very little difference of opinion as to the way of bringing up the foot. He thinks it not necessary to reach the foot with the hand. What-

* We knew the hand-writing, we thought; and yet, the signature being doubtfully written, we durst not hazard its appendence.—Edit. Vet.

ever way the hook be grasped, it is only for the purpose of reaching the foot; and whenever the operator can reach the foot and flex the pastern, he shortens the leg, allowing it to pass the brim of the pelvis; and he will find, whenever he can so flex it, the most difficult part of the work is accomplished. Both hands and arms are seldom necessary; and unless, in putting back the legs, drawing the cords, &c. according to the directions of the operator, no two persons can, with beneficial effect, work together in such cases; and any piece of iron, or instrument, such as described in Mr. B.'s letter, may look well enough upon paper, or sound well enough before students in a lecture-room, but in practice it would require to be used with more caution than can be expected from many of the assistants with whom we are brought in contact; and were any assistant to be pushing forcibly with such an instrument while the operator was exerting the whole of his strength to bring the calf into proper position, rupture of the uterus would, in many cases, be the inevitable consequence. I wish it to be understood that it was *calves* in the cases referred to, and not fœtuses; i. e. calves at or beyond the full period of gestation. When Mr. B. says, "it is a difficult task to remove the hind extremities, in consequence of the quantity of muscle required to be cut through before arriving at the articulation," it appears to me he supposes I cut from inside the thigh upwards; instead of which, I make a circular incision immediately above the trochanter major into the superior edge of the acetabulum, and a longitudinal incision from that downwards, in the direction of the femur, and into that bone, as represented by the accompanying diagram. In a calf, at this time, there is very little muscle in the way that requires cutting through. I pass my fingers through the muscles until I get them round the shank of the bone, around which I put a small cord with a running eye. An assistant pulling tightly at this cord, stretches as much as possible the capsular ligament, which is divided, as also the ligament connecting the femur with the bottom of the acetabulum; the rope is then pulled forcibly, and the leg brought out with perfect ease. If there be any ligaments undivided, they are easily found, as the leg is pulled outwards; but the muscles, being soft, can be torn with the fingers, and there is no more occasion for cutting in amputation of the hind leg than there is in the fore, where the leg is brought away with the scapula.

In the concluding part of his letter, Mr. Barlow says, "he will not resort to the knife till all other means fail." In this I beg entirely to differ with Mr. B. I have practised in an agricultural

district, where I have, occasionally, seen all sorts of cases, for nearly twenty years. I have never had occasion to turn a cow on her back. I will never resort to that practice until all other means fail. When I find a difficult case, where there is likely to be danger to the cow, I never hesitate one moment between destroying the calf and the hazard of destroying the mother; and, in most cases, I would have the calf extracted, either dead or alive—either whole or in parts—before the cow could be cast, turned on her back, and her feet secured; and after all this trouble, and a great many more, perhaps, fruitless efforts to extract the calf, the knife has to be resorted to, when both mother and progeny are likely to be sacrificed. I never lost a case in which amputation of either fore or hind extremities was performed; and as it is often, after all the means within the power of the owner have been exhausted, that we are sent for, I would recommend to all practitioners never to lose time in unavailing efforts to extract a calf entire, to the risk of the cow's life, when he can, by the knowledge he possesses of the parts, the prompt and proper use of the knife, and by the additional tact that practice has given him, amputate any and every part of the calf, even in the uterus.

I am happy that Mr. Barlow has given me an opportunity thus to explain. I do not mean to find fault, though I may differ in opinion with him. If any thing can be brought out in controversy beneficial to the profession, I am happy to see it; but I would discard all unnecessary bickerings, such as we have lately seen: and hope such Billingsgate, or Cowgate, or whatever you may please to call such trash, will never again disgrace the pages of THE VETERINARIAN.

THE CORRESPONDENCE BETWEEN MR. MAYHEW AND MR. BARLOW, CONCLUDED;

In a Letter from the former Gentleman to the Editors.

Gentlemen,

As you express a wish upon the subject, I will not attempt to reply to Mr. Barlow's last letter, but will bow in silence to that gentleman's superior acquaintance with Billingsgate, and endeavour to get out of the way of the red herrings with which he appears to have become most strangely infatuated.

On my own part, however, I owe to your readers some apology for having been most unwillingly forced to engage in a dispute which, I am sorry to say, has intruded upon your space to the

exclusion of more profitable matter. Had information been desired, a plain question would have drawn forth a simple answer. Mr. Barlow, unfortunately, by his needless and uncalled-for personality, provoked retaliation, while he prevented me from offering the explanation for which he professed to be desirous; but now that the idle discussion is brought to an end, allow me to lay before the readers of THE VETERINARIAN a few words explanatory of what has been wilfully confused.

In the paper* which has been rendered so unpleasantly notorious, I in no place assert that what I point out had not been previously seen by others; and, so far from being anxious to appear conspicuous as an anatomical discoverer, I mention the names of no less than five gentlemen to whom I had been indebted for the facts which enabled me to illustrate my opinions. The object of the Essay, therefore, clearly was not to puff up my anatomical knowledge, but to deduce from a chain of observations, the extent of which was not in the slightest exaggerated, a certain law to which it was thought too little attention had hitherto been paid. If in my opinions I have been anticipated, I am only happy to learn that what I hesitatingly advanced is not incapable of corroboration. I do not intend to dispute the right of priority. I am willing to be the last, so I am with the truth; but I think a friend of Mr. Dick's had more reason to rejoice when that gentleman's ideas were unintentionally corroborated, than cause to be offended at the circumstance. Of Mr. Dick's opinions and views I know but little, never having had the benefit of his instruction. I worked in ignorance of his opinions, which, had I known them, would probably have spared me much fatigue. This I regret; and I also lament that on so important a subject Mr. Dick should be so indifferent concerning the fame to which he is entitled. It cannot be supposed that every library contains all the periodicals of the day; neither can it be expected that an individual should, to the neglect of other duties, hunt through every volume that has been published. I contented myself with reading what I esteemed to be "the authorities," and, among the rest, perused the *Manual* published in 1841. In that work I found no notice to inform me of what I have since been told Mr. Dick long ago discovered, and at the present time enforces.

I have the honour to be,
Gentlemen,
Your obedient servant,
EDW. MAYHEW.

* See note, page 551.—EDIT. VET.

ON THE DISTRIBUTION AND USE OF TENDINOUS STRUCTURE AS CONNECTED WITH MUSCULAR FIBRE*.

By EDWARD MAYHEW, *M.R.C.V.S.*

I WISH to direct your attention to this subject, and to point out some circumstances connected with it that appear hitherto to have escaped observation. The structure of tendon, ligament, fascia, &c. is characterised by its slight elasticity and by its great power of resistance, or its strength. The vitality with which it is endowed is so low, that, while it retains its moisture, death seems not to impair its properties, and it is primarily subjected to few diseases. Undue tension, however, excites in it extreme sensibility, and gives rise to sprain. Sprain is an affection which has too generally been applied to the ligaments only; but I hope to shew to your satisfaction that the tendinous structure connected with muscular fibre is exposed to this injury, and that the distinction drawn between a tendon as connecting *muscle* to bone, and a ligament as joining *bone* to bone, is one which cannot be absolutely maintained. Muscle is said in some joints to play the part of ligament, and this assertion is generally made when demonstrating the scapulo-humeral articulation. The smallest amount of physiological knowledge will prove such an opinion to be incorrect. Muscular fibre cannot endure the constant traction which tendinous structure is formed to sustain. Traction upon a muscle calls forth its contractility; and, if this contractility be long excited, exhaustion ensues. Did the shoulder-joint depend upon the muscular fibre for its integrity, the humerus and scapula would first be firmly locked together, so as to prohibit motion, and then relaxed, so as to be incapable of resisting luxation. Muscular fibre has an active office, and other structures have been created for passive endurance.

Passing from the shoulder-joint, and proceeding to investigate the subject in its application to other parts, we find much stress laid upon the weight which the flexor pedis perforans and perforatus have to sustain. The horse, it is known, may exist for years, and yet during its existence never lie down. The animal can rest and sleep without of necessity assuming the recumbent posture. Did the flexor muscles during so lengthened a period

* The Editors have to apologize to Mr. Mayhew for not before publishing this, his original paper, which has given rise to the controversy between Mr. Barlow and him. They with much pleasure do so now, and thus put an end to a disputative correspondence which, without it, would be left incomplete.

endure continued strain, were they never to be rested while the animal was in a quiescent state, the whole frame would, from the continuous irritation, speedily become disorganised. There is, as the intelligence of my hearers must anticipate, a provision made to prevent the injurious effect, and to this provision I will shortly allude: but, before I do so, let me first direct your attention to another circumstance connected with the extensor muscles, confining my remarks, for the sake of brevity, to the fore leg.

During the recumbent posture, the leg being flexed, it at first sight seems imperative that the extensor muscles should be subjected to traction; as, by the bending of the metacarpal bone, the space measured from the head of the radius to the coronary process of the os pedis is considerably elongated. The limb, however, would not be rested did such traction exist; and I undertake to prove that nature has provided against its possibility; or, in other words, that, when the limb is passive, muscular force is not in action, or subjected to any stimulus calculated to excite its action.

Were no such provision made, the flexor muscles would be exhausted when the horse stood still, and the extensors would be enervated when the animal laid down: thus, renovation of the muscular energy of the limb would be a demonstrative impossibility.

Having briefly stated these facts or opinions of mine, let me now proceed to illustrate them by the result obtained from experiment. There is a foolish notion, too general among those who wish to be esteemed physiologists, that experiments should be performed upon the living body, in order to render them of value. Such a notion is ridiculous. The day of divination has gone by, and it is sad to see misguided men attempting to force the secrets of nature from the agonies of her creatures, or endeavouring to read the mysteries of the Creator in the reeking entrails of the created. Medicine claims respect only as it alleviates suffering, and that any department of the science is unfortunately associated with cruelty is a proof only of degradation. To the rightly constituted mind every pathological case is a physiological experiment; and conclusions drawn from the employment of force only shew the absence of a capability to observe, and are of no benefit to science, while they injure and disgrace the individual.

The experiments I shall adduce have all been performed upon the dead body, and, if any would therefore impugn their worth, let such remember that tendinous tissue is little affected by the absence of life.

If the fore extremity be allowed to undergo decomposition up to that stage when the muscular fibre easily ruptures, it will,

nevertheless, be found that the integrity of the shoulder-joint is but slightly injured. It will be found easier to break the bones in the attempt, than to tear the scapula from the humerus. Why is this? The capsular ligament is not so tense as to hold the bones closely together, nor so constructed as to offer very considerable resistance, while the muscular fibre gives way beneath the fingers. The scalpel will solve the mystery. The muscles of the shoulder are intersected by tendons, which, though expanded within the fleshy substance, can be distinctly traced from the scapula to the humerus in a direct and unbroken line. These tendons passing from bone to bone are the ligaments of the shoulder-joint. They bind the scapula and humerus together; they give security to the articulation; they admit of motion, and they limit it. While distributed as intersecting membranes through the bodies of the muscles, they render traction upon the fleshy fibre impossible, yet by their pliability are capable of being acted upon when the inherent contractility is excited.

Wherever muscles appear exposed to tension, there are they found intersected by membranous layers of white fibrous tissue; and the reason is obvious. Where the chance of tension is slight, the fleshy fibre is sufficiently protected by its sarcolemma or myolemma, and by its vaginal investment or fascia, both of which I am inclined to regard as not only bracing the contractile fibre, and preventing its displacement, but as also resisting any force calculated to excite its vital reaction.

Applying these opinions pathologically, we come to the consideration of the much talked of "shoulder lameness;" and where this existed, I should be far more inclined to seek the cause in sprain of the parts which are the ligaments of the joint, than expect to see the muscular substance deranged; for, if what I have asserted as to the use of the intersecting tendinous structure be established, then it is evident such structure must be injured before the muscular fibre could suffer lesion. My remark, however, should not be misunderstood. "Shoulder lameness" is generally a chronic affection, and, in the slowness with which it reaches a termination, indicates that some structure of low vitality, such as the white fibrous tissue, is the seat of disease. The pain, nevertheless, would throw the muscle out of use: thus the more vital tissue would be involved, which, from its tendency to undergo speedy change, might be so altered, that though only secondarily affected, it would, if the case had existed for any time, when examined after death, present the more marked signs of disease, and thus mislead the investigator. This matter, however, requires observation, and I here allude to it only to direct attention to the subject. I have nothing positive to advance.

Concerning the flexor tendons I shall be enabled to speak with more certainty. "Sprung tendon" is commonly said to be a sprain of those parts, or a sprain of the suspensory ligament, which last conjecture, I think, is the more generally received. It is, however, neither one nor the other, in any absolute sense. But, as I am anticipating my subject, permit me, first, to notice other matters connected with the flexor muscles. When the horse is standing, a very great portion of the weight of the body is through the navicular and sessamoid bones transferred to the flexor tendons: indeed, these tendons, or even one of them, the perforans, seems capable of preserving the natural obliquity of the pastern, which in the dead limb will be maintained, although the suspensory ligament and the perforatus tendon have been divided. The ligaments of the pastern joints offer considerable resistance, or co-operate in keeping the bones in their natural positions, as also do the suspensory and the sessamoideal ligaments; but, as I before said, a very considerable amount of that weight which the fore extremities support is imposed upon the flexor tendons. It is important to know whether the strain upon the tendon is communicated to the muscular substance; for, if such can be demonstrated to be the case, all my previous assertions fall to the ground.

To ascertain this fact, let the muscular belly proper to the flexor tendon be dissected off. I have done this frequently, and find the removal in no way affects the obliquity of the pastern; but when the foot is afterwards pressed upon the ground, the pastern remains in its normal position, and the back sinews become as firm and tense as in the living animal. If the dissection be now proceeded with, there will be discovered, intimately connected with the synovial membrane, two ligamentous bands, the *superior* of which arises from the inferior and posterior of the radius, and the *inferior* of which takes its origin from the lower row of the carpal bones and from the posterior surface of the superior extremity of the cannon. These two ligamentous bands proceed downwards, and are about six inches in length. Their structure more nearly resembles ligament than tendon: their fibres are less compact, and are mingled with a much larger amount of cellular tissue than can be discerned in tendon: they both blend with the flexor tendons, the superior behind the knee and the inferior at a point answering to the centre of the large metacarpal bone; but the superior is more obviously connected to the perforatus, to which the inferior sends but few fibres.

When the foot is pressed upon the ground, these ligamentous bands are rendered tense, while that portion of the flexor tendon located above the os trapezium is no way affected, however great the force employed. The use of these bands, then, is obvious;

they are interposing agents, to prevent any strain being communicated to the flexor muscle when the limb is quiescent; and as ligamentous structure can endure—nay, for its health, requires continued tension—they explain the means which enable the horse to rest and sleep without seeking the recumbent posture.

When I first saw the use of these bands, it struck me that in strain of the tendons these must be the parts primarily involved; and though I had no actual experience to back my assertion, I declared the suspensory bands to be the seat of that injury denominated "sprung tendon." My opinion was by some, no doubt, thought unworthy of attention, for it was opposed to that of various authors deservedly regarded as authorities. But shortly after I had hazarded the assertion, an animal which had the flexor tendons of both fore-legs affected was destroyed, and on investigating the parts my conviction was in the fullest manner confirmed. The ligamentous bands were found enlarged, much thickened, and intermixed with and surrounded by a dark-coloured highly organized substance. The inferior was found to enclose the perforans and perforatus, which were concealed within it as in a sheath. On opening one of these sheaths I found the enclosed perforans tendon softened to a great degree, and the texture so loose that with the fingers the fibres could be separated—a proof that it had sympathised in the inflammation by which the ligamentous band had been primarily and acutely attacked. Below the seat of disease the tendon was firm and healthy.

These ligamentous bands, by their position, admit of the upward motion of the tendons when the muscles contract, but they endure the entire strain when the foot is placed upon the ground. To them the shock sustained in leaping and during violent exertion is communicated; and though frequently injured, yet they aptly illustrate the power of resistance inherent in the fibre of which they are composed, when their comparative small size is contemplated in conjunction with the enormous bulk of the horse's body, increased by the weight of his rider, and the force they are capable of resisting when this mass is subjected to the impetus of motion. They are, I have said, frequently injured; and, regarding the uses they are ordained to fulfil, I cannot forbear asserting, more frequently injured than is generally imagined. In rupture of the tendons they must be involved; they cannot escape, for the strength of any part is the force which the weakest point of such a part is capable of resisting. The structure of the ligamentous bands does not allow us to conjecture that they are more coherent than tendon; but being less in bulk than the back sinews with which they unite, and subjected to injury when the tendon is strained, we must view them as the weakest point of that part of the organism with which they

are connected. In all cases, therefore, where rupture of the tendon is caused by the weight of the body, these bands must suffer lesion, and only when the tendon is lacerated by the contraction of the muscle could they possibly escape. That they are principally concerned in that deformity known as "contraction of the tendons," I feel little hesitation in affirming. A colt suffering in this respect was slaughtered, and I inspected the member which had not been subjected to operation. The heel was greatly elevated, but I found the suspensory bands of the flexor tendons as tense as in a limb of healthy conformation; and because during such a state of parts the muscle does not lose its activity, I must regard contraction of the flexor tendons as resulting from chronic inflammation of the suspensory bands causing their fibrous structure to shorten or contract, and view the elevation of the heel as induced by this cause, and not as consequent upon the contractile energy of the muscular substance.

As the suspensory bands exercise so great and evident an influence on the obliquity of the fetlock, it is but fair to conclude the uprightness of the pasterns depends upon a shortening of these ligamentous supports, though, from the manner in which the animal thus afflicted performs its work, such diminution of length is unattended with pain.

To the same cause, namely, shortening of the ligamentous bands connected with the flexor tendons, but attended, in this instance, with sensation, I would likewise attribute the "knuckling" of old and hardly-worked horses; nor can I otherwise than imagine these parts are frequently the seat of lameness. When we have viewed their structures, fully comprehended their uses, and been made conscious of their importance, it will be felt that they are greatly exposed to injury—that no part of any organ in the body is more likely to suffer; and their position and their function enable us, through them, to explain many pathological and physiological facts which otherwise would want interpretation. Directing our attention to the extensor tendons, we shall find the provision made to render traction upon the muscular fibre impossible during the motion of the limb no less marked, and the various structures so distributed that both passive and active have their proper function.

The flexor brachii appears to be the muscle which most affects the obliquity of the shoulder, and the maintenance of the scapula in its proper position might be considered to be its constant office. This, however, is effected by tendinous tissue. The flexor brachii is commonly described as sending off a tendon to the extensor metacarpi magnus; but if that tendinous slip which connects the two muscles be traced in both directions, it will be found to be continuous from the coracoid process of the scapula to the head of

the metacarpi magnus. It is a band proceeding from bone to bone, though, in its course, it is connected with fleshy fibre and with the tendons of muscles. When the animal is erect it supports the scapula. When the horse lies down, it, conjointly with the brachial fascia, prevents traction upon the contractile substance of the extensor magnus. To its use in associating the action of the two muscles I have no space to allude; but its importance in this respect is obvious and fully acknowledged.

I must be understood to assert, that there is a continuous band of ligamentous structure extending over the anterior of the limb from the point of the shoulder in a direct line to the inferior of the carpal joint. This substance, though destined for important service, is of comparative small size, and I cannot but think it is frequently subjected to injury. I have seen horses, said to be lame in the shoulder, drag the fore-leg upon the ground, refusing either to flex the radius upon the humerus or to advance the cannon. Such is exactly the action any one acquainted with the uses of the muscles I have referred to would anticipate, if the ligamentous band which connects them were sprained; and the seat of injury in these cases, I anticipate, will be found to exist not in the shoulder, but in the connecting tendon, or where the arm unites with the shoulder; for as, at other parts, the tendons blend with and strengthen the band, this becomes the weakest point.

The other extensors of the limb are similarly protected against the possibility of traction by the intervention of white fibrous tissue. The brachial fascia, of great density, takes its origin from the outer side of the humerus, below the external trochanter, and, passing over the superior part of the body of the extensor pedis, blends with the tendon of the muscle. Nor is this all: from the posterior of the trapezium a ligamentous slip of considerable size takes its origin, and, proceeding obliquely downwards and forwards to unite with the tendons of the pedis and suffraginis, resists any traction upon the muscles during the flexion of the pastern, while at the pastern itself further protection is afforded by union with the ligaments of the joints, and blending with the lateral continuations of the suspensory ligament.

The provisions to which I have alluded are designed to prevent the muscular contractility being excited by traction resulting from mechanical force, or from the flexion of the limb. When the knee is bent, the space measured from the head of the radius to the coronary process of the os pedis is increased about four inches. Were there no provision of a special kind made against such a possibility, the muscular substance would have been subjected to a traction of this extent every time the limb was fully flexed. To prevent such an occurrence, the brachial fascia attached to the

humerus and extensor pedis pulls down the bone, or causes the humerus to be flexed upon the radius whenever the knee is bent; and I have not been able to flex the metacarpal bone while another person held the humerus stationary. And by this arrangement, though the distance from the head of the radius to the foot is increased, yet, if the space be measured over the anterior of the muscles, there it will be found, in consequence of the compulsatory yielding of the humerus, to be the same during every position of the limb. The provisions made below the knee render traction on the contractile fibre impossible if the fetlock is flexed when the leg is extended—a circumstance of not unfrequent occurrence when a horse stumbles—all force being then resisted by the tendons and their accessory ligaments alone.

Nature has, however, provided similar means to protect the delicate serous membranes associated with tendon from being injured by the spasmodic energy of the muscles. The different uses of the bands found united to the tendons of the horse's leg are easily ascertained by the direction of the fibres, which, as in articular ligament, always run in the line of that force they are designed to restrain. From the posterior of the radius there will be found to arise tendinous cords, which are inserted into the flexor tendons. These, perfectly distinct from the bands to which I have before alluded, are obviously intended to limit and restrain the action of the muscles. Also, from the inner side of the head of the cannon bone a broad band takes its origin, which, passing obliquely upwards to the front of the knee, blends with the tendon of the extensor pedis, this likewise restraining or regulating the energy of the muscle.

Thus, gentlemen, I have endeavoured to point out to you structures which have, so far as I know, been hitherto unobserved, and I hope I have not over-rated their importance. If I have done so, your experience will speedily correct my error; but, unfortunately, our anatomy needs practical application no less than assiduous investigation, for the field is as yet but rudely explored. I wished to prove that in the living body each structure has its use, and that the functions of white fibrous tissue and muscular fibre, though the two may be associated, yet in their offices remain distinct. Thus, while fibrous tissue is formed to resist and to sustain as a passive agent, muscular fibre, being active, is protected from all excitement, that it may obey the dictates of the will.

I may not conclude this Essay without making the most ample and grateful acknowledgment of the assistance I have received, while prosecuting my inquiries, from Messrs. Jeykell, Crowly, Jones, Crabbe, and especially from Mr. Varnell, to whose skill in dissection I am indebted for many of the facts which have enabled me to illustrate my opinions.

THE APPRENTICESHIP CLAUSE IN THE BY-LAWS CONSIDERED.

By JOHN DUNSFORD, *M.R.C.V.S., London.*

HAVING just heard that the Council of the Royal College of Veterinary Surgeons have under consideration the repeal of (in my estimation, and I think it will be found in that of the profession generally) one of the most important of their by-laws, viz. The Apprenticeship, No. 2, Sec. II, I shall feel obliged by your calling the attention of the body to this subject. There can be no question but that much of selfishness exists in human nature; and this fact, self-evident as it is, calls for a calm consideration of the motives which give rise to every important action: and where a few individuals are entrusted with the interest of a large body, it behoves them to take enlarged and comprehensive views of what will most extensively and permanently add to its present and future prosperity. There should be no compromise of great principles to meet private interests or parting views. The one great question with such a body should be, Will it advance the general good? Let us see the effect of the supposed alteration on the character of the future members. Does our elevation as a profession depend principally upon the superior knowledge which is and shall be possessed by its members? If so, it would be well for us seriously to inquire, whether it is possible for students to obtain, in the limited time our schools require, that amount of instruction and practical knowledge which will qualify them satisfactorily to appear before a discerning public. A few, by untiring perseverance and industry, with the possession of superior mental powers, may obtain those first principles which lay the foundation for future observation and research; but much of that which is ever common-place, and upon which the public generally estimates a man's ability, must, of necessity, remain for future opportunities. When we come to consider *cattle practice*, where is the opportunity for attaining it? Not at the London school. True, there is the Professor, and willing he is to do that which his circumstances will enable him to accomplish; but diseased cattle find not their way to St. Pancras: and should a sheep or a pig enter its domains, they would excite some curiosity. What estimate, then, shall be put upon that practitioner who, for the first time, is called in to an obscure case, relying principally upon his theoretical acquirements? Do not these circumstances require the continuance of the salutary law under consideration?

Trusting you will take notice of this in your next number, if possible, either by this letter or any other way you may think best, believe me,

Your's, &c.

UNFAIR PLAY.

Gentlemen,—I HEREWITH enclose you a few articles taken from the "Armagh Ulster Gazette and Sporting Chronicle," of which Mr. M. Small, Veterinary Surgeon, is the proprietor. My object in so doing, is to expose a system which has been and is still carried on in that paper, and which I am aware is contrary to the invariable practice of the press. I beg to direct your attention to an article headed "Warranty," to which Mr. Small has appended the initials of his own name instead of that of the worthy professor of the Edinburgh Veterinary College, as given in THE VETERINARIAN of 1841, page 16. The article on navicular disease you will at once recognize as that of Mr. J. Turner, in THE VETERINARIAN, vol. ii, page 54. The letter addressed to the editor of the Ulster Gazette, you will also recognize as taken from THE VETERINARIAN, being a portion of a communication addressed to you as the editor. There are many other articles he has acted the same way with; but I have not now the papers in which they appeared, as I sent them to a friend in England; there are, however, two articles which occur to my mind, of which I took notes, viz. the article on Monomania, VETERINARIAN, vol. viii, page 393-4. Cases 1 and 3, he published in his paper, and appended the initials of his own name; but in case 1, instead of a "*Piedmontese officer*," he inserted "*a Scotch friend of mine.*" In case 3, he stated the objects to be *red* instead of *white*. He also published an article on the "Prevention and Palliation of Lameness in the Feet of Horses," extracted verbatim from the *Farrier and Naturalist*, to which he appended his own name. What will the advocates now say of the exclusive system of circulation of THE VETERINARIAN, when a member of the profession will extract articles from it to insert in a provincial paper without acknowledging from whence he took them? Nay, not contented with robbing a Journal of some of its most valuable articles, he extracts the *private* correspondence of others, and appends his own name to them; a very honourable way to become a veterinary writer. But I must cease; he is the author of the "Veterinary Tablet." I considered it my duty to apprise you of

this, in return for the valuable information I have received from your highly talented journal.

Hoping you now enjoy uninterrupted good health,

I am, Gentlemen, &c.

*** Not courtesy only, but justice, demands, when one journal makes an extract from another, that the borrower should acknowledge the lender. Our informant has sent us his name, also a paper containing the extracts alluded to.—Ed. Vet.

MR. WATERS, JUN. ("ONE OF THE INJURED PARTY"), IN REPLY TO MR. W. A. CHERRY.

Gentlemen,—In your last number I find a letter from Mr. W. A. Cherry, in reply to my letter, under the signature of "A Subscriber, and one of the Injured Party," to which I beg to offer the following as a rejoinder :—

Mr. W. A. Cherry, as the champion of the Council, sets out by accusing me of gross inaccuracy, which he proposes to correct; but, in attempting to do so, only shews his utter ignorance of the subject, or a wilful intention to pervert the facts. My complaint has nothing to do with the diplomas of 1846 (which, however, I understand were detained a month by the Council, for what reason, I believe, has not been explained), but with the four unjustly withheld in 1845; and, in order to shew the correctness of my statement, I shall point out the grounds on which I assert they were unjustly withheld.

I entered as a student at the Edinburgh Veterinary College in November 1844. It was then, and had been, the regulation there for a number of years, that those students who had served an apprenticeship of three years with a veterinary surgeon should be allowed to stand an examination for the diploma after having attended one session at that school. I had served six years' apprenticeship, and produced my indenture; and all others were allowed an examination after having attended two sessions, although they had not served any apprenticeship: the serving a three-years' apprenticeship thus being held an equivalent to one session's attendance at the College.

I had been long previously in communication with Professor Dick, and entered with him in November 1844, on the express understanding that, at that time, no alteration had been made in the curriculum; and it was not for two months after that the bye-

laws were passed by the Council, upon one of which I have been refused my diploma; thus making the bye-laws have a retrospective effect in my case and in that of the other three students who are similarly situated with myself. This, I contend, is inconsistent both with the *spirit* and *letter* of the Charter; and is, therefore, unjust. Mr. W. A. Cherry states that our examination was protested against. This was done by Mr. Gabriel; because, finding the bye-laws did not apply to us, seeing we had entered before they were passed, he protested against our examination on the ground that a resolution was come to by the Council at their first meeting, to the effect that all students who should enter either at London or Edinburgh after that period should be subject to the bye-laws that might afterwards be passed by the Council; such a resolution was, however, *ultra vires,* because the Charter distinctly states that no bye-law shall be made and passed until it has been *three months* under consideration from the time of its being proposed. And here the Council, at their first meeting, adopt a resolution making all the bye-laws binding from the *first* meeting, which is contrary to the spirit and letter of the Charter; not only so, but the very bye-law which they make the ground for refusing me my diploma, is an enactment beyond the powers conferred by the Charter; inasmuch as by it the Council are only empowered to appoint examiners and to examine, but have no power conferred by it to fix a curriculum; but, even if they had such power, their conduct, in my case and the other three, is inconsistent with the very bye-law they have enacted; because, while they have allowed those students who have had no other opportunities of gaining a knowledge of their profession than two sessions' attendance at College to pass, they have enacted that all students, after the first of January 1848, must serve an apprenticeship of three years, in addition to attending two sessions at College; thus putting a value at a *future* period on an apprenticeship which they will not allow in *times past.* Thus, although I have studied six years as an apprentice and six months at College, students who have only studied eighteen months, or, rather, who have only studied twelve months, are allowed to pass, and receive their diplomas, while I, who have studied six years and one session, am refused mine; not on the ground of want of knowledge, but because I have not complied with a bye-law which they have no right to apply in my case; and I, therefore, call it *gross injustice.*

From what has been stated, it will be seen that the assertion of Mr. W. A. Cherry, that the certificates were *not* sent by Professor Dick, is a mere quibble. The Professor *did* send our certificates; and if the Council had required our indentures to be sent, they had only to say so. They were produced to Professor

Dick, and he certified to that effect. What, then, is meant by the statement, that every facility was afforded for their production, and that they have not been produced? The main object of the Charter being to ensure proper examinations, surely when we had undergone our examination by the Council's examiners, and reported by them to be duly qualified, and having paid our fees, we are entitled to our diplomas; and the withholding them is, I contend, an act of *gross injustice* on the part of the Council, whatever Mr. W. A. Cherry may assert in their behalf.

Further, I have reason to believe that, in the case of one of their friends, the bye-laws have not been so strictly enforced, where their application was quite proper.

I remain, dear Sirs,

Your's truly.

September 15, 1846.

REMARKS ON AUSCULTATION.

By W. Arthur Cherry, *V.S.*

In the following remarks, I wish to draw attention to a very important subject, and one which, though practised by a few, is still not carried to the extent, or with that degree of minuteness, of which it is deserving—I mean "auscultation." Every one with whom I have conversed on the subject, and who has in any way adopted it, has admitted its importance, and its value as a diagnostic agent.

I know not a disease of either the thoracic or abdominal viscera in which the evidence afforded by "auscultation" is not, either directly or indirectly, of the most important and valuable kind. I say "indirectly," because, through its agency, when we are certain that abdominal disease is existent, we are, to a great degree, able to ascertain what organs may *not* be affected, and thus very much contract our field of diagnosis. As, for instance, an animal is brought under treatment for a disease productive of great pain, similar to what arises from common *cholic*. By comparing the sound originating in the vermicular action of the intestines in a state of health with that perceptible in the animal under examination, we can tell whether the intestines themselves are the seat of the malady, which would be *direct* evidence; or, supposing the sound they give to be normal, we may be pretty certain that the

intestines are not the seat of disease, but that some other of the abdominal viscera are affected: this would be *indirect* evidence, and, coupled with other recognised symptoms, will enable us to give a tolerably correct *diagnosis*, and to order our treatment accordingly.

Again, "auscultation" will inform us with the greatest accuracy of the part which may be the seat of disease among the thoracic viscera; whether it be of the *pleura* or the substance of the *lung*, the mucous membrane lining the *bronchi* or the *trachea*, or the *larynx*. Furthermore, it will afford the strongest evidence as to the existence of *induration*, *hepatization*, or any irregularity that may exist in the respiratory action of the lungs. It will also indicate the existence of *hydrothorax*, and of *effusion* of lymph into the cavities of the pleura or pericardium; and when these various points come to be carefully studied, and the symptoms indicated by different forms of disease understood, auscultation will very correctly point out whether effusions be of the serous or lymphatic character; the extent and nature of any obstruction that may exist in the substance of the lung; or whether we are to refer any disease that may affect the heart itself to the substance of that organ or to the pericardium.

Again, in ascites and in pregnancy, in the latter months, auscultation proves of the highest value to us.

It is impossible for any one person to be able to study so comprehensive a subject through all the various and important forms of disease, so that he can accurately point out the nice distinctions between all the symptoms exhibited. I must, however, in justice say, I know many instances in which the auscultatic examination has shewn such very accurate results, as has been proved by the post-mortem examinations, that I am certain, ultimately, this subject, when proved and verified by the observations of the many, will fully bear out any opinion, however high, that may may be entertained of its merits and importance.

I have adopted the term "auscultation," meaning thereby the employing of the EAR *alone*, without aid from any instrument; and though the medical profession always employ an instrument (the stethoscope) from motives of delicacy, we, in our practice, do not require such, not even if it were of any real utility, which it is not, but actually the reverse.

About twenty years ago I commenced a series of observations on healthy and diseased respiration. I commenced with the stethoscope, and steadily employed the instrument for two years; but I must confess that, at the end of this time I knew but little more than when I began my experiments. I doubted the efficacy of the instrument itself, and the goodness of my own ear—I tried

other stethoscopes with the same result—I found that I could hear with these different stethoscopes distinctly enough the respiratory action in man, but in the horse, cow, dog, cat, &c. I was at fault; while, with the naked ear, without any assistance, I could make out very distinctly the different sounds produced in the chest. I therefore, after a very patient series of experiments, abandoned the stethoscope, and depended upon my ear alone. I have no doubt the cause of the failure of the instrument arises from the interposition of the hair, not only from its being a non-conductor of sound in itself, but from its leaving a vacuity between the open extremity of the stethoscope and the skin, which allows any sound, that might otherwise be transmitted, to escape, as well as extrinsic sounds to enter the tube. I have tried various methods to obviate this difficulty,—a silk or linen handkerchief very tightly strained, and pressed firmly over the side, but with no good effect. I have at various periods repeated these experiments, but always with the same results. I now, therefore, depend upon the ear alone, and, whenever it is possible, without any thing (except the hair) to impede the sound. It is sometimes, however, requisite, in consequence of the effects of blisters, &c., to make use of a covering; in which case I use a thin linen rubber, or cloth, because the most generally to be procured, and this I have smoothly and tightly strained over the part I wish to examine. By this means I am enabled to make examination at all times: and so confident am I of the nature of the auscultation, that I never like to give an opinion before I have had recourse to it: I even find it of service in making an examination as to soundness, where much nicety becomes requisite.

Before any correct diagnosis can be formed, it is requisite that the sounds produced by respiration in animals in a state of health be understood. In their normal condition the lungs will be found to be pervaded equally throughout with a *murmuring* sound. When this murmur is unequal, or less distinct at one part than at others, it may be fairly presumed that that portion which has the least murmur is the part wherein the greatest degree of disease exists. So, also, in regard to the sounds produced in the abdominal viscera, it is requisite to know the nature of the sound occasioned by the vermicular action of the bowels during ordinary states of health, and thus, by comparison, will visceral derangement be detected.

But there is one point that must not be lost sight of; for unless that be pretty well understood, the other knowledge will be but of little avail, that is ANATOMY. Without a knowledge of the relative position different parts occupy, an acquaintance with the part

of the external surface wherein different organs are to be found, the evidence afforded by auscultation will prove more perplexing than instructive.

I find that my remarks have taken up more space than I intended; I must, therefore, defer some illustrations and additional minutiæ until another time. But I hope that what I have here advanced, will draw the attention of my brother-practitioners particularly to this point, and thereby lead to the promulgation of a series of facts as firmly establishing "auscultation" amongst us as it long has been established among practitioners of human medicine.

Extracts from Domestic & Foreign Journals, Veterinary, Medical, Agricultural, Sporting, &c.

Compte Rendu of the Proceedings of the Royal Veterinary School at Alfort during the Scholastic Year 1844-45.

Clinical Chair.

Titulary Professor ..M. Renault.
Assistant Professor..M. H. Bouley.
Chef de Service ....M. Prudhomme.

During the scholastic year which has just elapsed, 1546 animals of different kinds have been entered in the hospital for medical or surgical treatment, or examined with regard to their fitness for service, or under commercial or judicial circumstances: of these were 1170 horses or mules, 11 asses, 26 cows, 11 sheep or goats, and 328 dogs.

Four thousand five hundred horses, 60 asses, 7 cows, 5 goats, 7 pigs, and 203 dogs, have been brought for advice to the morning consultations.

Lastly, the pupils in their fourth year of their study have been sent to nearly two hundred farmers, market-gardeners, and graziers in the neighbouring localities, to attend cattle, sheep, and pigs.

Thus, the pupils who are this year to go up for their veterinary diplomas, have had the opportunity of watching the progress of different diseases in more than twelve thousand animals of various kinds.

Such has been the subject of the clinical course during the last two years.

In order to enable the pupils to profit as extensively as possible from the immense multitude of cases brought under their notice, they have, according to the excellent system practised in our schools, been ranged in two classes, one for each year, and had committed to their care, in the order of their standing on the list and the date of admission of the animals, one or more patients, and have had to render a circumstantial report of every symptom and minutia of treatment daily required of them.

Every morning, at the visiting period, the professor, or the *chef de service*, commands the attention of the pupils by his practical remarks, and directs them to the study of clinical facts by off-hand questions concerning diseases thought of at the moment.

Lastly, in the clinical lectures given in the amphitheatre, the professor completes the studies commenced by the side of the patient.

We are now about to give a short summary of the observations, researches, and experiments which have been made in the clinical department during the course of the present year.

A. Glanders.—*The Horse.*

The following is the resumé of 129 cases treated in the hospital during the present year. We present them in the abstract, in order to avoid entering into statements which would be but repetitions of doctrines we have already promulgated.

1. The principal cause of glanders is excessive fatigue and over work, which barely leaves to the horse one day's rest in the whole seven*.

2. Falls from a great height, into trenches or pits, for example, are frequently the fore runners of glanders†.

* It is always in the carriage of stones and heavy loads; in the establishments of small speculators who keep but a limited number of horses and employ these animals incessantly; also, in establishments where rapid draught is required, as those of post-masters, of persons who horse the diligences, and of hackney coach proprietors, &c. that this disease commits the greatest ravages.

† We have been led to make this observation since the commencement of the extensive fortifications. Frequently, horses which have been dragged

3. Strangles also occasionally engenders glanders. This happens when the fluxional commotion, of which the head is the seat in the former of these diseases, is propagated to the membrane of the sinus, and gives rise to the formation of a purulent collection in one of the cavities, which eventually becomes the source of an inexhaustible running.

4. Glanders frequently attacks horses having every advantage that breed, sound constitution, goodness of form, light work, wholesome feeding, and salubrity of stabling, can bestow.

5. Glanders exists but in two stages, the acute and the chronic; gangrene does not constitute any peculiar variety of glanders, but is simply a termination of the acute stage.

6. These two stages of glanders are often confounded in the same patient; either the chronic stage succeeds to the acute, or the acute stage grafts itself on the chronic: hence, in practice, it is frequently impossible to distinguish between the two stages.

7. The attack of glanders, whatever may be the form it is subsequently to assume, is always preceded by a pyretic state, which lasts from three to nine days.

8. This fever of incubation does not always develop itself under purely pathognomonic characters. An extreme depression—loathing of all kinds of solid food—heat, adherence, dryness, and scurfiness of skin — dead and rough coat — small, quick, and contracted pulse—rapid and uncertain breathing—tottering and methodical gait—a rapid and almost instantaneous loss of flesh; such are the vague and indefinite symptoms which lead us to dread the outbreak of glanders, especially in working horses, unless an examination of the viscera enables us to attribute all this to the commencement of some organic lesion.

9. Glanders at the commencement, whatever may be the type under which it afterwards develops itself, always begins with symptoms of *acuity: post-mortem* examinations prove this.

10. The pyretic state diminishes or ceases entirely as soon as the disease commences*.

down great heights into deep excavations, have become glandered after a lapse of three, four, or five weeks, although, at first, the fall did not appear to have caused any serious organic lesion, or even to have impaired the general functions. We merely state this fact without, at present, making any attempt to explain it.

* This almost invariable and insidious phenomenon is frequently the cause of very dangerous errors. On perceiving the apparent improvement which suddenly manifests itself at the moment of the invasion of the disease, the owners of the animals are but too apt to deceive themselves with the hope of soon seeing that which they believe to be but a slight fit of indisposition, perfectly cured; while, in point of fact, the disease is then but just breaking out, and is more dangerous than ever.

11. The eruption of glanders may take place in the nasal cavities and in the lungs—on the surface of the skin—in the subcutaneous cellular tissue—in the testicular region—and in the articulations of the limbs: whatever be the part affected by the disease at its invasion, it is always identical in its nature.

12. The nasal eruption is not always present at the commencement of the disease; but, in general, it is not tardy in making its appearance in the course of the successive phases through which the disease passes, which proves the identity of nasal glanders with such affections as break out in other parts of the body subsequently to the incubative fever.

13. The most pathognomonical symptom of glanders is the nasal chancre. It has a diagnostic value as great and as infallible as the syphilitic chancre.

14. The chancrous eruption in acute glanders is multiplied and confluent, a circumstance which rarely permits us to entertain a doubt relative to the nature of this affection, from the very moment of its development; it is often, however, diffuse in chronic glanders.

15. The projecting edge of the fold of the superior wing of the nostril seems to be the spot especially selected for the chancre of chronic glanders. When met with in this region at the same time with discharge, it may be affirmed with certainty that the sinuses of the head on the corresponding side are full of pus*.

16. The ulcer of chronic glanders is always preceded by the development of a pustule, which is usually very small, scarcely bigger than the head of a pin, yellow and transparent in the centre, and surrounded by a circle of vivid red. At the commencement it is often met with in the folds of the superior wing of the nostril.

17. The manifold erosions of the epithelium on the surface of the nasal partition, resembling the tracks of a maggot, are a sign of very long standing, and an advanced stage of chronic glanders.

18. The induration, flattening, and adherence of the sub-lingual glandular tumours, are a sign of long-standing glanders. It is, however, wrong to assert that glanders commences when the glands present these characteristics: it has already existed for a considerable period, even when there is neither discharge nor ulceration.

19. The discharge of acute and chronic glanders frequently exists on both sides; this is, however, more commonly the case in

* This symptom of glanders, so well known and recognised by the veterinary surgeons of former times, has been but too much neglected latterly: this should not be. I have so much confidence in it, that I have often, in the presence of my pupils, caused horses brought to me for examination under suspicion to be slaughtered on the faith of it, affirming to their owners that glanders existed, and that the head was full of pus; and I have never found myself mistaken.

the former than in the latter. On the other hand, there are simple catarrhal affections characterised by discharge from one side only.

20. The discharge of chronic glanders is not always similar in character. Much depends upon the state of plenitude of the sinus from which it emanates.

The most pathognomonic characteristic of the discharge of glanders is the flux of a dirty filmy serosity from the nostril, in the midst of which greenish clots are found held in suspension. When the sinuses are full, the matter discharged is thick, flaky, clings about the surface of the nasal opening, and often exhales a faint odour.

21. All three of the distinctive symptoms, viz. the discharge, the ulceration, and the glandular tumefaction, are by no means necessary to enable us to recognise the existence of glanders. The presence of either one of them is quite sufficient to constitute a positive diagnostic.

22. That which is vulgarly regarded as *weakness*, and which is improperly called *sarcocele*, being better designated *epididymitis*, or *orchitis*, complex inflammation, in fact, of the testicle, and more frequently of the epididymis and of the vaginal sheath, is a symptom so generally accompanying glanderous affections, that it may be inquired if it be not pathognomonic of this disease. In fact, after the incubative fever, it frequently constitutes the sole indicative of glanders, of which it is the precursor, as well as of the nasal eruption, of some weeks, often of some months.

Inflammation of the testicle, of its appendages, and of its envelops, attended with formation of pus, as in glanderous *orchitis*, may appear without specific cause: but what are the characteristics which distinguish the one from the other?

The incubative fever is a certain sign of difference from nature, but the disease is frequently not noticed until it has become definitely established. In this case it may be permitted to doubt, at least, that the co-existence of the symptoms on the side of the nose and the cutaneous surface with uncertain sarcocele will cause the indecision to disappear before the specific characters which it brings to light. In all cases the existence of orchitis and of epididymitis is so frequently connected with glanders, that it may be considered as a sign of dangerous import.

23. The contagiousness of chronic glanders, if it always exists when the disease has attained the state of chronicity, as many conscientious observers affirm that it does; the contagiousness of chronic glanders, we repeat, can only be demonstrated by examination*.

* During the course of the present year we have caused more than twenty healthy horses, purchased for the purpose of experiment, to cohabit with glandered horses in the stables called the Haras, whither these latter are

24. Chronic glanders ought, in order to become contagious, to change its character under the influence of work, and the fatigue thereby occasioned. Charbon, with all its contagious characteristics, develops itself in a few hours in over-driven or worked oxen: acute glanders will suddenly appear in a most startling manner, and in animals of the very best constitutions, in consequence of over-work. Why should not chronic glanders develop itself in a similar manner, and still more so in horses already under the influence of as serious a disease, and one which leaves upon their constitutions so deep a stain as that of chronic glanders*?

25. Admitting the possibility of the contagiousness of chronic glanders, that is to say, that it is practically so, the sanitary laws and regulations ought to be most strictly observed with regard to all animals affected by it. But, in order to take a reasonable view of such matters, we must not make a bugbear of this contagion, and attribute to it consequences which may be logically shewn to arise from other causes.

The denial of the contagiousness of glanders by so many observers is, at any rate, a proof that its contagious properties are not so evident, and consequently so dangerous, as some would have us believe.

26. Acute and chronic glanders may become spontaneously cured when the animals are in good hygienic conditions. The therapeutic means to which recourse is had to combat these affections are only efficacious to repair the local lesions, when the germ of the evil which produced them has become completely exhausted.

27. Acute and chronic glanders can only disappear from a spontaneous effort of the organism, when the lesions which they have occasioned at the period of their eruption are limited, and are extinct on the membranes in free communication with, and extensively and normally open to, the exterior.

Thus, glanders may become cured when the pustulous eruption takes place in the large openings of the nostrils, on the surface of the partition, or on the exterior of the *alæ nasi*. It may also become cured when the eruption appears on the surface of the body; but it becomes incurable when, under the influence of the glander-

banished. The cohabitation has lasted some weeks, some months, and even for a whole year, and we have been unable to perceive any case of contagion.

* Facts appear to us to militate more and more in favour of this opinion. A serious and painful operation which induces a high degree of fever will cause chronic glanders to pass rapidly into an acute state; and under similar circumstances a healthy horse may suddenly become affected with acute glanders. Scarcely a month ago we saw this disease manifest itself in a most sudden and striking manner in a ten-year-old horse of sound constitution, which had been suffering from a most painful traumatic lesion of the hoof.

ous crisis, the cavities of the alæ nasi and the sinuses of the head are filled with pus; when the lungs, the spleen, the liver, are bespattered with ulcerations; when the articulations contract suppurative action under the influence of specific inflammation; when the principal lymphatics of the limbs have become obstructed through the pus they convey. In a word, whenever the glanderous eruption gives birth to organic lesions, it, by this action, sets at naught the power of nature and art, and becomes incurable.

28. Another necessary condition to the possibility of a spontaneous cure of glanders is, that its eruption should be moderate. Where the glanderous pustules are confluent, they create a disposition to gangrene in the limb on which they appear (the mucous membrane and external tegument), and the lesion thus produced by them becomes as incurable as if the pustules had been deep-seated*.

29. All those specifics that are cried up as infallible cures for glanders are useless. It is folly to attempt the cure of this affection excepting under the conditions we have pointed out: there is a natural and spontaneous cure of chronic glanders even where there is complication of the disease with a purulent collection of matter in the sinuses, and hence may have arisen the illusion relative to the beneficial effects of certain therapeutic agents which have been employed to combat this affection. Occasionally, after the lapse of a considerable period, months or even years, the sinuses have thrown off the pus they contained, and the membrane covering them secretes an apparently albuminous matter which becomes concreted, organises, and fills up the whole of the purulent cavity. The consequence of this transformation of the membrane of the sinuses is the drying up of the discharge. This is one of the very rare terminations of chronic glanders complicated with a purulent collection in the sinuses.

30. The best method of treating local glanderous eruption is to apply the actual or potential cautery, or to extirpate the diseased part. The extirpation of glanderous sarcocele is attended with greater or less success, according as the operation is performed sooner or later after the commencement of the evil. If the sole object of the operation were to get rid of a source of excessive pain and irritation, it would be rational and advisable. When about to practise it, we ought always to wait until we see acute

* In the course of this year we saw the entire skin of one limb become literally gangrenous in consequence of the sudden eruption of acute glanders. Notwithstanding the glanders had confined its action to that part, that the nose and chest were perfectly healthy, and the patient retained his appetite, he fell into a complete state of etisy, arising from the enormous quantity of suppuration which was discharged from so extensive a suppurating surface as the entire periphery of a limb. It became necessary to destroy him.

glanders make its appearance on the nasal membrane in the course of the traumatic irritation.

31. Both acute and chronic glanders are subject to relapses.

Such is a summary of the observations we have been enabled to make this year in the hospital on glanders and farcy, with an abstract of the doctrines and opinions these observations have engendered in our minds.

B. PNEUMONIA.—*The Horse.* (Resumé of the facts collected this year.)

1. The most common cause of pneumonia is the action of cold on the skin while in a state of perspiration.

Hard runs or gallops will produce it;

It is frequently consequent on a sudden or too rapid cessation of some eruption or external secretion;

It is not unfrequently complicated with the eruption of strangles;

It sometimes develops itself during the eruption of acute glanders;

Lastly, it is frequently seen to appear without our being able to discover any cause to which we can rationally assign it.

2. Acute pneumonia is one of the most destructive diseases to which the horse is liable. The external as well as internal symptoms by which it manifests itself are almost invariable.

Primary external symptoms.—A tottering and automaton-like gait—great prostration—the head hung down—insensibility to all external agents—standing in the stall at the very end of the halter—the number of respirations increased, varying from eighteen to twenty at the minimum, and from fifty to sixty, and even seventy, in extreme and desperate cases. Expirations now and then plaintive, and becoming accelerated as the disease increases, manifested in the walk and in the different movements and alterations of position in the body when imperceptible during quiescence. Cough rather frequent—deep—hollow, convulsing the whole frame, and evidently painful. Pulse hard and rebounding, or else small and weak, and even imperceptible from the beginning, notwithstanding the strong constitution of the patient and the recent invasion of the disease. The conjunctival membrane highly injected, and red, with a yellowish saffron tinge. Discharge from one nostril or the other, and frequently from both simultaneously, of a yellow fluid mixed with streaks of blood, which dries into brownish crusts around the orifices of the nose. A loathing of all solid food, and a craving after fluids. Almost invariably standing—uneasy decubitus for a few moments—preference to lying upon the diseased side.

Internal symptoms.—Absence of respiratory murmur on one or both sides, and almost constantly at the inferior part; whistling or tubular sound in the inferior half of the middle part of the lungs when the pneumonia exceeds the level of the larger bronchial divisions;—confinement of sound to the bronchial trunk, whence it is emitted at the nostrils;—humid crepitus audible above the hissing sound within the vicinity of the inflammation;—supplementary respiratory murmur in the sound parts of the lungs, and always more intense over the diseased portions;—resonance producible in the thoracic cavity by percussion, on a level with the healthy parts; corresponding dulness of sound in the diseased parts.

3. The tottering and automaton-like gait shews how much the powers are oppressed. It sometimes causes pneumonia at its commencement to be confounded with founder. The prostration, insensibility, hanging back at the very end of the halter, and want of appetite, invariably commence at the approach of the disease; nevertheless, these signs are occasionally wanting in large entire horses, of a naturally lively and excitable constitution, and such will not unfrequently continue, by neighing, to give signs of health, notwithstanding the existence of considerable pneumonia.

The increase in the number of respirations is always in ratio with the extent to which the lungs are ravaged by the inflammation; and in this case the chronometer affords an excellent means of estimating the magnitude of the pulmonary lesion.

The groan *(la plainte)* is pathognomonic of pneumonia, and may serve to distinguish it from pleurisy. There is often no cough in pneumonia: although, however, not an absolute characteristic of the disease, its presence in conjunction with other and more marked symptoms serves to render the diagnosis clearer.

The pulse in pneumonia especially guides us through its therapeutic indications. Where it is strong, bleeding is indicated; nor does a weak pulse always counter-indicate such abstraction, especially when it has this character at the commencement of the disease. In this case the weakness is more apparent than real; it results from the pulmonary circulation being impeded, and from an oppression of the general powers. A well-timed and repeated bleeding will frequently relieve an oppressed pulse.

The yellow saffron-like hue of the red and injected conjunctiva is very characteristic of pneumonia. This tint probably shews the imperfect assimilation of the chyle.

The yellow, serous, and slightly bloody discharge does not belong to pneumonia. It evidently denotes a sanguineous stagnation in the pulmonary capillaries, and filtration into the pulmonary vesicules through their parietes, of a serosity which, in being separated from the blood, carries with it some red globules. The abundance of this

discharge depends upon the extent of the pulmonary inflammation. Not generally very abundant so long as the animal is kept quiet, it works its way into the inferior meatus, and then dries up upon the dependent parts of the nares. Exercise sometimes renders it frothy, more bloody and abundant, and so much so that it adheres to the whole circumference of the nostril. In this state it somewhat resembles the discharge which accompanies the commencement of acute glanders*.

The loathing of solid food and desire for fluids are not symptoms peculiar to pneumonia; they belong to all acute affections; their presence, however, always serves to render the prognostic clearer. Where the appetite continues good, notwithstanding the existence of pneumonia of some standing, it is a favourable symptom; while, on the other hand, the prognostic always becomes more serious where patients manifest a prolonged loathing for food, however slight, according to our means of ascertaining the fact, and in proportion to the extent of lung injured by disease. In large heavy horses, the appetite holds longer during an attack of pneumonia, and returns sooner after it has subsided, than in light and irritable horses. We must also be upon our guard against the voracity of the former; it may lead us astray, and cause us to doubt the actual seriousness of the malady.

The prolonged standing position is a symptom invariably attendant upon pneumonia in the horse; it probably arises from the weight of the animal rendering his respiration difficult in a lateral decubitus. Even during a state of health many horses breathe loudly, and almost plaintively, when lying upon their side: this probably arises from the weight of the body impeding a free

* I have known persons fall into the error of confounding this discharge with that arising from abscess in the lungs, and condemning a horse suffering from it as having "mourning of the chine," or pulmonary consumption. These symptoms, so pathognomonic of pneumonia—I mean the groan and the discharge—were first pointed out to me by my father. They may be known to other practitioners, but I am not aware that any veterinary author has mentioned them. D'Arboval does not. There are numerous observations equally important as these, and facts full of interest are constantly being met with in individual practice, but which, for want of publicity, are lost to the general community. Is not the period arrived when all veterinarians should be called upon to contribute to a general work, a kind of encyclopædia, which should be a summing up, and register, of modern veterinary science? This is a question worthy of consideration, and one which the Central Veterinary Medical Society, and the approaching promulgation of a law protective of our profession, will not fail to bring under notice.

I shall recur to this suggestion in the course of the next year; meanwhile I purpose laying it before the Central Veterinary Medical Society for their consideration.

exercise of the chest on the side which comes in contact with the ground.

In cases of pneumonia, this impediment, united with that resulting from the presence of inflammation in the lungs, renders the respiration oppressed to suffocation, so that the animal finds itself totally unable to maintain a lateral recumbent position for any length of time. Ought not, then, a prolonged recumbent position, unproductive of evil, and unattended by greatly accelerated respiration, occurring during pneumonia, to be regarded as a favourable symptom? It is an indication of resolution in the lung, a precursor of convalescence. On the other hand, repeated attempts to lie down, while the evident uneasiness or pain occasioned by the recumbent position compels the patient to rise again very shortly, and prevents him from taking that rest which he evidently requires so much, are most unfavourable signs; they indicate great prostration of strength, and at the same time demonstrate the intensity of the disease. The desire after fluids is a febrile symptom which may serve to throw a light on the prognostic. When fever is intense, patients will empty the vessel of water at a draught; but so soon as the febrile action decreases, and appetite returns, they are satisfied to agitate the water with their lips, and plunge the nose and muzzle into it, in order to seek at the bottom for particles of food.

4. In pneumonia in the horse, it almost invariably happens that congestion takes place in the inferior part of the lung, and to this succeeds inflammation, and all the various alterations which follow in its train. May not this species of predilection exercised by pneumonia arise from the natural fluidity of the blood in this animal?

The absence of respiratory vesicular sound is the first symptom indicative of congestion or of inflammation of the lungs: in point of fact, the pulmonary vesicules disappear, or become completely effaced, while the blood, impeded in its course, stagnates in the capillaries and their coverings, or becomes suffused within the cellular tissue which isolates them; and the serosity which separates itself from the blood, and the globules which it conveys with it, infiltrate the pulmonary tissue, which is no longer, properly speaking, any thing but a mass of fibrine and albumen, combined with the parenchymatous tissue of the organ. The air no longer penetrating this impermeable mass, no sound can be produced; and percussion of the chest, practised on a level with it, only produces a dull resonance.

This condensation of the pulmonary tissue, however, by the fibrine and albumen of the coagulated blood in the vascular net-

work of which it is chiefly composed, cannot obliterate the large bronchial tubes, whose cartilaginous rings resist the peripheric pressure they have to support in the midst of this transformed pulmonary mass: the air, while permeating their canals, which remain open in the centre of the compact block of coagulated fibrine which now represents the lungs, conveys to an ear applied to the thoracic cavity a sound analogous to what it would produce in passing through the pipe of a whistle. It is this whistling sound or tubulans râle, perceptible at each respiration, which may be considered as the most pathognomonic internal symptom of pneumonia. The grunt audible in the orifice of the nostrils modifies the tubulary râle at the moment of its production, and renders it more sonorous and shrill. It is an indication of the acuteness and severity of the malady. It increases with the disease, and disappears as the patient recovers. The humid crepitating râle heard above the sound of the whistle, and in the vicinity of the effusion, is occasioned by the presence of the serosity, the product of inflammation in the small bronchial tubes still permeable to the air, the serosity finding its way through the vesicular parietes into the aerial canals.

The supplementary murmur perceptible in the sound portions of the lungs is connected with the acceleration of the respiration, that multiplying the columns of air entering the lungs, and consequently increasing the sound produced by the collision of the fluid against the walls of the canals in which it circulates.

5. The resolution of pneumonia is announced by the diminution and rapid disappearance of all the symptoms we have endeavoured to describe and explain. The period when the disease is most violent varies generally within the limits of the first, seventh, eighth, and ninth days. This latter is the extreme period, and if symptoms of resolution are not perceptible then, there will be but too much reason to apprehend that the disease will prove incurable.

6. When pneumonia continues with unabated violence, and proceeds uninterruptedly towards an unfavourable termination, the persistence and aggravation of the symptoms announce the continuance and consequent aggravation of the disease. Some of the symptoms will, however, become modified by the mere duration of the disease; these are, for example, such as are dependent on the circulation. The mucous membranes become discoloured, and the pulse feeble in proportion as the disease increases; the temperature of the skin, and that of the expired air, decreases in like measure; the respiratory sounds vary according to the mode and degree in which the pulmonary tissue becomes altered, and the general expression of the disease remains the same as at the period of its utmost severity, even though it is rapidly progressing towards an unfortunate issue.

7. The termination of pulmonary inflammation in gangrene is very common in the horse. The frequency of this fatal complication arises, principally, from two causes: on the one side, the perfect functional structure of that organ in which the sanguineous and aerial canals are multiplied to such an extent, that the cellular tissue, the basis of all plastic structure, becomes, in manner of speaking, rarefied, and, at the period when inflammation causes the stagnation of blood in the capillaries, does not present substance sufficient to enable it to re-act against the liquid mass infiltrated into its air-cells; and, again, the natural fluidity of the blood of the horse takes a very leading part in the production of gangrene. At the time when the blood becomes stagnated in the capillaries, and subsequently in the larger vessels, a great quantity of serosity becomes separated from the condensed fibrine and albumen, filtrating through the cellular texture of the lungs, macerating it, as it were, and destroying in it all plastic power.

The air acting upon this mass of liquid and animal matter shut up in a sort of organised net-work, whose vitality is thus, in a measure, extinguished, quickly causes it to undergo a putrid decomposition, rapidly transforming the substance of the lungs and the clots of blood it contains into a soft deliquescent substance of a reddish-green colour, holding in suspension consistent masses of a yellow amorphous matter, which are the fibrinous clots of discoloured blood. Gangrene of the lungs of the horse is then, properly speaking, neither more nor less than the putrefaction of the organ, and of the fluids contained in it, purely from contact with the air.

8. The alterations produced by gangrene of the lungs have frequently been taken for chronic changes of structure. The yellow amorphous matter floating in the gangrenous liquidity has been considered to be tuberculous deposit: this is an error which attentive observation will soon rectify. The alterations we have been describing may, in sound-constitutioned horses, be produced in a very short period of time. The very rapidity of their formation is, in fact, a proof of the soundness of the lungs in which they are developed. If the organ prove the seat of former indurations, or of tuberculous cavities, those parts, modified by chronic inflammation, would, from their greater degree of density, be more capable of resisting the process of putrefaction, and often be found unaffected in the midst of the gangrenous dissolution, in such rare cases wherein gangrene has attacked long-diseased lungs.

9. The gangrenous odour of the expired air, and the gurgling sounds apparent on auscultating at the level of the softened parts, are the principal pathognomonic signs of the supervention of this termination of pneumonia.

10. Suppuration very rapidly takes place in the lungs, whether

it be along with interstitial infiltration or in cavities bordering on highly organised parts. This fact, so contrary to what is generally admitted and believed, and needing much explanation, is particularly interesting as it regards veterinary medical jurisprudence.

Inflammation is a modification of the nutritive functions, manifesting itself in the solids with a rapidity great in proportion as the nutrition itself is perfect. In those parts where the nutritive process is energetic, as in all those organs where the cellular tissue is abundant and the vascularity extensive, inflammation develops itself with great energy, and, in a very short space of time, manifests such products as it is capable of engendering. Thus, for example, experiment as well as daily clinical experience demonstrate that in the skin, the subcutaneous cellular tissue, and the muscles, inflammation is in four-and-twenty hours capable of giving to the nutritive structure an aptitude for the formation of pus; and that within a few days after its development the tissues, which are the seat of it, present all the characteristics of deep alteration in texture, density, and vascularity. But those phenomena of whose evolution we have traces externally, are, in the same manner, taking place in such more deeply-seated organs as present the same nutritive aptitudes; and it ought not to cause surprise that, in cases where pulmonary congestion does not act upon a vast superficies, and is unaccompanied by hemorrhage, the cellular texture of the organ, modified by inflammation in it, should, in a short space of time, become capable of the formation of pus, and submit to all such organic transformations as have their origin in inflammation. In other words, no more time is requisite to develop these purulent deposits in the lungs than it takes to effect a similar pyogenic operation in the subcutaneous cellular tissue; and in both these cases the work of organization of the walls of these purulent cavities occupies about the same period. It is, therefore, an error to conclude that a lesion is of long standing because an abscess enclosed in a cavity, possessing walls perfectly sound, and a degree of induration, has been found in the lungs. A fortnight is quite sufficient to effect such alterations as this. The clinical facts observed this year demonstrate the truth of this assertion. The vascular state of the walls of some of the specimens, their density, their thickness, the organization of the false mucous membrane which covers the interior of the purulent cavity, all pourtray the differing characters between an old and recent state of the changes produced in the pulmonary texture by inflammation.

But, in general, unless we have some certain indications to enable us to ascertain the exact period of the commencement of the disease, it is difficult to fix precisely the date of their origin;

for, at the expiration of a fortnight or three weeks, the pulmonary lesions will have already assumed a highly chronic character.

We would advise practitioners to study these facts. Many lesions have been attributed to "mourning of the chine," which were occasioned solely by acute pneumonia arrived at its third or fourth septenary.

11. The phlegmasiæ of the synovial sheaths which so strangely succeed to inflammations of the pulmonary apparatus, and sufficiently often to enable M. Bouley, jun., to whom we owe their first notice, and which appeared in our "*médicine*," to give a description of them, and lay down the laws which governed them; these phlegmasiæ, we repeat, have been observed repeatedly in the hospitals this year under every degree of intensity, from a slightly-painful swelling of the synovial sheaths to a suppurative inflammation of the membranes lining them, and to caries of the sesamoids.

The following case will give some idea of the highest degree of complication that it is possible for these inflammations of the synovial sheaths to attain—those last expressions of *diathesis* to which phlegmasiæ of the pulmonary apparatus give origin :—

An entire horse, of the Boulonnais breed, and of an excellent constitution, large in size and about thirteen years old, was received into the hospital of the school on the 14th of December, 1844, labouring under every symptom of acute pneumonia in the left lung. It was treated by bleeding, by the application of revulsives to the skin and the subcutaneous cellular tissue (sinapisms and setons), and by tartar emetic administered in his drink daily. Under the influence of this treatment the pulmonary disease sensibly decreased; for on the 22d of December, eight days after the commencement of the disease, the animal was able to lie down on either side.

On the 23d, the rhythm of the respiration was very regular, the motions of the flank being but twelve per minute. The animal was considered as convalescent.

On the 24th of December it was perceived that the tendinous region of the near fore leg was a little infiltrated, and painful about the level of the sesamoids; and at the same time, on the vein of the right side, a phlegmonous tumour, where a bleeding had given rise to a thrombus, was recognised: the off leg was the seat of an œdematous infiltration, somewhat warm, symptomatic of phlegmon above. The upright position was rendered difficult by these two phlegmasiæ. The animal suffered very considerably—its skin was covered with perspiration—the respiration was nervous and accelerated—the artery distended—the mucous membranes of a deep red hue. Auscultation proved that both lungs were permeable to the air.

A blister was applied in the region of the tendons on the left side, to divert to the skin the inflammation in the sheaths. The phlegmon about the joint was treated by applications of narcotic ointment.

On the 25th there was no improvement of the general state, although the vesicatory had produced a sufficient degree of action. The skin was covered with phlyctenæ. White diet:—the animal was turned into a thickly littered loose box.

On the 27th, there was considerable amendment. The patient could rest better on the left leg.

On the 28th, the right leg was now, in its turn, withdrawn from the ground; the tendinous region had become the seat of considerable pain, and about the sesamoids was considerably tumefied.

A blister was applied along the whole extent of the tumefied sheath. White diet diluted — a bleeding of six pounds:—the animal remained lying down the greater part of the day.

On the 29th, the patient much the same. Alkaline drinks, and sulphate of soda, daily.

On the 30th, the lower lip was paralysed: the appetite continued good, but the animal could not satisfy it without difficulty, the paralysis of the lip impeding its power of seizing the food. Prolonged decubitus.

On the 1st and 2d of January the off fore leg had ceased to be painful on pressure, and was rested with tolerable firmness upon the ground; but the near leg had become very sensitive, and, on examination, manifest fluctuation was perceptible on the external surface of the sheath. On this abscess being punctured, a considerable quantity of pus, mingled with blood, flowed from it. Treated by emollients.

On the 4th of January, two fresh abscesses had appeared; one behind, on the posterior surface of the tendons; the other in front, on the internal side, a little above the fetlock joint. On these abscesses being punctured, and especially the latter, which extended over a larger space than the former, a great quantity of sanious, ill-conditioned pus issued. A considerable degree of hemorrhage followed the operation, although the artery certainly had not been implicated: it was arrested by moderately applied compression.

On the 5th the limb operated upon was rested gently on the ground. Emollients continued.

On the 6th the limb was placed firmly on the ground: there was evident improvement in the general state of the patient; the wound made in the sesamoid capsule was in a fair way of healing up. The animal lay down during some portion of the day. In the evening he endeavoured to get up. In the state of numbness

induced by a prolonged recumbent position, he made violent efforts to rise, during which the dressings covering the diseased limb were displaced, and the wound, which had been cicatrising, was torn open afresh: a considerable quantity of blood flowed from it. When the persons who were going the round perceived the accident, the animal had broken out into a profuse perspiration; his pulse was feeble; the mucous membrane shewed signs of incipient discolouration. A compress dressing arrested the hemorrhage. From this date to the 27th, healing and cicatrization of the wound made tardy progress, the animal not appearing to recover much strength, although his appetite continued good and his diet substantial.

On the 27th the near hind limb became similarly diseased. There was extreme tenderness, and some fulness of the fetlock.

28th and 29th.—The animal in great pain again. Abscess has formed upon, and the skin sloughing off, the fetlock and pastern of the near fore-leg. The following days were marked by aggravation of the symptoms. Gangrenous eschars are apparent upon those parts of the body that have suffered most pressure from long lying, and have compelled us to put the animal into slings.

The same effects were soon found to be occasioned in other parts by the pressure from confinement in the slings, and obliged us to take our patient out again. At length, reduced by pain and irritation, and the suppurative ill-conditioned state of his wounds, he died on the 2d March.

Autopsy, five hours after death:—General pallidness of the tissues, and emptiness of the vessels. Recent hepatization of the anterior lobe, and inferior border of the left lung, with commencement of the process of putrefaction in the liquids infiltrated into its substance.

The intestinal mucous membrane was the seat of a vivid injection which gave to it a blackish hue, especially about the cœcum and the larger curves of the colon. The mesenteric glands were tumefied, gorged with blood, and their surfaces presented white deposits of concrete albuminous matter. The skin of the off haunch peeled away from a large abscess. The external angle of the ileum was softened by caries.

Fore-limb.—The skin about the tendons was considerably injected, and the cellular tissue lining it infiltrated with an abundance of lemon-coloured serosity. The surfaces of the tendons of the flexor muscles betrayed an inflammatory condition highly remarkable. They were closely united together and to the surrounding parts by a fatty cellular tissue crisping under the action of the knife.

The sheath of the hind tendons was much inflamed, and its internal surface covered with a pseudo-membranous exudation.

The suspensory ligament of the pastern adhered to the perforans tendon by an indurated cellular tissue. The interior of the sesamoidal sheath was lined by a finely granulated pyogenic membrane, resulting from the transformation of the synovial membrane which naturally covers it. The sesamoid joint, deprived of its cartilaginous layers, was the seat of caries, which penetrated into its very bones. The fetlock joint was inflamed and filled with purulent bloody synovia.

The lesions observable in the tendinous sheaths of the posterior limbs were such as attend the commencement of acute inflammation.

This case furnishes an instance of the most serious termination of inflammation of the synovial sheaths, consecutive on pleuro-pneumonia, which is possible. But such form of termination is, fortunately, extremely rare. In general, these tendinous *synovites* terminate in complete resolution of the inflammation, and restoration of the normal integrity of the inflamed parts.

However, it is not uncommon for this kind of inflammation to occasion a plastic exudation into the interior of the sheaths, which produces adhesion between the tendons, and glues them to one another.

This termination of tendinous *synovitis* is exceedingly serious; and for this reason, that by impeding the play of the tendons on each other, and hindering their independent movements, it prevents a free exercise of the articulations, and is consequently an obstacle to locomotion, which, in such cases, is always found to be attended with more or less pain.

Hence, the animals were unfitted for work for a considerable period, if not always; for it is by no means rare to find that tendons once glued together retract, rendering the line of perpendicular so distorted, that the only course left is to destroy the animal.

[To be continued.]

A few Remarks on Foot-Rot in Sheep.

By Herr Volk, *V.S., Wernberg.*

Notwithstanding the numerous valuable papers that have been contributed by my professional brethren from all parts of Germany to this Magazine, so ably conducted by Professors Gurlt

and Hertwig, of Berlin, on epizootic or mild foot-rot, I am induced to believe that it may not prove superfluous if I make a few brief remarks on the form in which this disease here manifests itself, and the severity with which it attacks some individuals. I have here seen it prevail among cattle, sheep, goats, and pigs, attacking at first several individuals, and then whole flocks together.

The first symptom was a scarcely discernible lameness, which, however, soon increased to such a degree that the animal could not get on at all, but stood still every moment, seemed dull, and lost its appetite. To this was associated more or less fever; and I soon observed, first on one here and there, and then on many of them, an inflammatory swelling on the coronet, which had already begun to form matter, and eventually broke either there or between the claws at the heel.

The matter which oozed from these sores appeared to be peculiarly acrid; it ate into all the surrounding parts, and often created such an extensive wound, that the whole foot was covered with it, and the horny sole was loosened from the claws, and at length came off. Nay, I have even seen caries of the hoof and coronet bone produced, and the poor animals have wasted away and died under this complicated suffering.

It is by no means easy to state precisely how this disease originated; whether it was brought to these parts by some Polish swine which were brought here for sale, or whether it arose from influence of the weather which we had previously had. Many persons are of opinion that it is caused by the sheep having been kept on hot sandy soils during a long prevalence of dry weather; others, trace its origin to the animals having been pastured on damp marshy land during particularly wet summers.

Whenever I have been called in to render my professional assistance in such cases, which not unfrequently happened during the late prevalence of foot-rot in these parts, my first endeavours were always to discover the origin of the disease,—whether it had been introduced by any animals brought from some place where foot-rot was prevalent; but it always appeared that the previous hot, dry summer, when the sheep could find but little pasturage, and the land was dry and burning, and water scarce, and what there was being very bad, had laid the foundation of the disease.

I always found that in a flock of sheep there were three separate stages of disease.

In the first, the coronet, &c. was of a pale reddish hue, and painful to the touch;

In the second, the formation of matter had commenced;

And, in the third, ulcerous sores were formed, and disease of the coronet and hoof coming on.

I, consequently, adopted three separate modes of treatment, and had the animals divided into three divisions, according to the stage of the disease in them.

Those in which the first stage only had appeared I ordered to be driven several times a-day through clear water, and had the fold frequently cleansed from dung, and fresh straw strewn over it, and this simple treatment proved very successful; many were cured by it.

In those in which the disease had reached the second stage, and where the formation of matter had commenced, and the horn had already become loosened, I cut off the loose portions of horn, and dressed the foot with a solution of *alumen ustum* and *cupri sulphas*, and the improvement and benefit thus produced were wonderful.

In the third stage of the disease, which was not so frequent as the others, I was compelled to have recourse to the cautery, and by this means I often succeeded in checking the disease and saving the patient. In one sheep, which was submitted to this mode of treatment, not only the hoof and coronet bone, but also the fetlock and shin bone, were attacked, the flexor tendons were drawn up, and for a long time this animal went about on its fetlocks: several fistulas appeared, which I burned, and thus checked the farther mischievous course of the disease. But a horny formation subsequently was developed along the shin bone, which gave to the foot a peculiar and unnatural appearance.

For some time after it was cured, the animal continued to go upon his knees; but the application of a splent to the fetlock joint taught him once more to use his foot, and, notwithstanding the prolonged horny formation, to walk very well.

I cannot conclude without observing that hot, dry summers will most certainly produce this disease; for about three years ago we had such weather, and our flocks were sadly devastated by it. It can also be produced by a continuance of wet weather; for two years ago it rained almost incessantly for many weeks, and then came the foot-rot among our sheep, nor have we yet been able entirely to get rid of it again.

These few remarks may appear to some but the repetition of that which has often been said and written on this subject: I do not pretend to any discovery, but would merely contribute my mite towards the general treasury of veterinary science.

Magazin für die gesammte Thierheilkunde, 1845, p. 326.

The Stomach and Intestines a Respiratory Surface, being the Cause of the Blood's Circulation through the Liver.

By Charles Searle, *M.D., Bath.*

[From the Lancet.]

The powers for circulating the blood through the system are now, I believe, pretty generally acknowledged to reside in the heart, in its twofold capacity of a forcing and a sucking pump, and in the action of the capillary vessels. The left ventricle propelling the blood through the arteries by its contraction, and the auricle by its dilatation (and the partial vacuum formed by the expansion of the chest, and the atmospheric pressure *ab externo*), aids it in its return by the veins, into which it is first conveyed by the excitement imparted by the arterial blood to the capillaries, I say, by the stimulus of the arterial blood in the capillary vessels; for these are found to accord in action with the respiratory function, capillary excitement being the result of chemical action, developed by the agency of oxygen in its combination with the elements of the blood.

Such being the circulating powers, it has ever been a matter of astonishment with me how the blood could be circulated through the liver, seeing that these powers are wholly inoperative with respect to the liver, or nearly so. Light is at length, I am of opinion, thrown upon this matter. I believe I can now see clearly what heretofore has been a matter of so much doubt and difficulty to me; and this I now beg leave to submit to the notice of the profession. The action of the heart, I repeat, must be wholly inoperative, or nearly so, in the blood's circulation through the liver; and the blood furnished to the liver being at the same time venous, the united streams brought by the veins of the stomach, bowels, spleen, and pancreas, and associated in the portal vein, must be equally inoperative as regards the capillary vessels. Well, how then is the circulation (through the liver) effected? Simply by the surface of the stomach and bowels being a respiratory surface, and thus imparting (by the oxygen absorbed) the vital qualifications necessary for the blood proceeding to the liver; but first circulating on their surfaces, and to the alimentary juices also absorbed from these surfaces. The alimentary material, moreover, in its passage to the stomach, being first masticated, is mixed with the air of the mouth: air, too, being constantly swallowed with the saliva, is received into the stomach, in combination, also, with

water—man's proper beverage in common with the rest of the animal creation. Here, I should say, was an abundant source of power for animating, not only the capillary vessels of the liver, but the lacteal absorbent vessels also, vital action being thus imparted to these vessels by their fluid contents, in like manner as to the capillaries of the arterial system. These views are borne out by the analysis of Majendie, who found oxygen in combination with nitrogen in the stomach of an executed criminal, but no oxygen in the bowels. And thus also the purpose of chewing the cud in ruminant animals, which are all herbivorous, and require, therefore, from the increased volume of food necessary for them, a more active condition of the absorbing and hepatic functions, and, by re-masticating their food, are accordingly so furnished*. At the same time, the product is farther animalized by receiving an accession to it of nitrogen also. These views are supported, again, by the fact, that herbivorous insects have, in substitute for this power of chewing the cud, air-cells diffused over their body, in addition to the spiracles which are common to insects.

If, Sir, these views are correct (which I am of opinion can hardly admit of doubt), how many important deductions with reference to health and disease arise out of them! I shall at present only mention one, which involves an argument of the highest importance in favour of temperance and cold water. It is well known that fish and aquatic animals are maintained in vitality simply by the air contained in the water they inhabit: boil the water, and its vital properties are dissipated. With this fact before us, and seeing that half the population never allow a drop of water to enter their stomachs which has not been boiled or contaminated in some way or other, is it surprising that constipation or torpor of the stomach and bowels or liver are of such frequent occurrence? And, in a moral point of view, could any fact be adduced half so cogent in favour of unsophisticated cold water as man's best beverage as the one I have given, namely, its power of adding vitality to the blood?

Bath, June 1846.

* The horse species, though "herbivorous," are not *ruminant*. But they drink, and have capacity for large quantities of water.—Ed. Vet.

THE VETERINARIAN, OCTOBER 1, 1846.

Ne quid falsi dicere audeat, ne quid veri non audeat.—Cicero.

The Council, we are quite sure, will receive the approbation of the profession for having rejected the degradatory offer of compromise made to them by the Governors of the London Veterinary "College:" and they deserve the more credit for having refused to entertain overtures of such a nature, from the circumstance of their having been made to them at a period when their Chartered College stands in need of any and every support that can be obtained for it. Look at it which way we will, the fact is not to be blinked or lulled to rest, that, in the present condition of its affairs, the Royal College of Veterinary Surgeons is any thing but a flourishing corporation. But a year or two old, purely professional in its constitution, without any extrinsic support whatever, the College of Veterinary Surgeons stands at the present time, poor and insulate, in the midst of troubled waters. No public institution ever rose its head as a new object in society without having enemies as well as friends present at its inauguration: enemies, however, will always, in the course of time, disappear under the conviction of the public that the designs of the new institution are such as are praiseworthy and hold out general utility; and it is the steady, unremitting pursuit of these ends which will, and in time must, surround any institution with friends, be its character professional or commercial, or whatever it may.

The importance of veterinary science in such a country as Britain is no longer matter of question. The considerations of the present age are, how so useful and important a science can be brought to the highest degree of perfection, and by what legitimate means those who profess and practise it can be placed upon a footing which their services in society give them a claim to command. Root was given to the veterinary art in England by an Agricultural Society; the plant has been nursed and nourished by the State, and by the Nobles of the State; public approbation has

brightly shone upon it, has caused it to bring forth in due season its blossoms and its fruits, and, spread about in sundry situations, these products are now benefitting and delighting all such as choose to take advantage of them. Meanwhile, the followers of the art, increasing year after year, in society have attained that magnitude and importance which has fairly entitled them to recognition as a corporate body or COLLEGE; a recognition which they have at length obtained, and which, being obtained, is fairly regarded by them as the first step to self-government and professional independence.

No sooner, however, have the members of the veterinary profession become possessed of their Charter of Incorporation, gifting them with self-government and independence, than the schools, who have all along enjoyed, or fancied they have enjoyed, a sort of dominion over the profession to which they have given birth, finding themselves deprived of this real or supposed dominion, take umbrage thereat; and the umbrage they take, increased by their Professors being deprived of the assumed "right" of examining their own pupils, grows by degrees into a spirit of opposition to the chartered body, and a determination, on their part, since their opposition cannot avail them in any other way, to seek for a charter for themselves.

This is precisely the present condition of veterinary affairs; a state we cannot contemplate without feeling arise in our breasts the question, What must or is likely to be the result of the working of such separate charters, supposing one or two, in addition to the present one, were to be obtained? In this inquiry we are not about to speculate on what may be the nature of the supplementary charter or charters, but to confine our observations to the single circumstance of two or more veterinary charters being in co-existence; for, that the present Charter cannot be repealed but by the hand which conferred it, and that such repeal would never take place unless full and sufficient reasons could be alleged for so unconstitutional an act, we opine, the opponents to our Charter are fully aware. The original Charter, therefore, existing in all its integrity, would still hold the *body* of the veterinary profession, those alone becoming seceders who hold interest in or connexion with the present veterinary schools. With the general body of

the profession, therefore, the same courses of proceeding, the same fellowship among its members, would be in operation then as now; there would, likewise, exist the same Council, and the same board for examination of pupils. The creation of another council and another examining board could in no way influence the present institutions of that denomination; neither could any person, let him have passed any other examining board or not, be admitted as a member of the Royal College of Veterinary Surgeons until he had obtained the diploma as by their Council ordered and legally demanded through virtue of their Charter. Will the pupils at the different schools submit to this exclusion? Will they rest content under this exceptionable enfranchisement? Will they walk comfortably in this condition of professional non-entity? And, supposing the schools, through virtue of any separate charter they may obtain, choose to endeavour to persuade the public that any license or certificate of qualification for practice they may give is equal in value or effect to any obtainable from the original and veritable College of Veterinary Surgeons, in what must such impolitic measures end? Why, to a complete certainty, in the institution of another educational college—one representative of and incorporated with the present Royal Chartered College, having for its supporters the general body of the veterinary profession; and for its patrons, men that will in time rally round it equal in rank and number to the governors of or subscribers to the present schools. Thus, a fearful and much-to-be-regretted schism would be created in the veterinary profession; though, in the end, the general body, true to itself, must and would prove triumphant.

Such is a faint and imperfect sketch of the present and prospective conditions of veterinary affairs, should the schools persist in the impolitic and bootless measure of endeavouring to obtain for themselves a separate charter. The prospect may, at a distance, look pleasing to them. If, however, they will but for one moment reflect, they cannot but feel they have no hope of succeeding in establishing their charter *without* the approval and support of the profession; and that of such support, so far from having any guarantee or promise, they at present lack even the slightest demonstration. Their very own pupils will no sooner have departed out of their collegiate walls than they will haste to enrol their

names in the true and only acknowledged College of Veterinary Surgeons; a college by which pupils always have found, and always will find, themselves kindly, liberally, and justly treated, and which in due time will provide for them such privileges and immunities as are at present enjoyed by the professors of the sister science of medicine.

For our own part, we have all along breathed *peace*, and our voice is still for peace. Intestine war will but tear to pieces a profession but recently, and as yet but feebly, cemented together by a charter of incorporation. Disagreement, dissensions, quarrelling, wrangling, cannot end in any good; and if the veterinary profession be constituted of such heterogeneous and un-assimilating ingredients as cannot, under even favourable circumstances, amalgamate, how is it possible or likely it can command either the sympathy or support of the public at large? After every and the fullest consideration of matters, we can come to no other conclusion but that the schools may, *without any sacrifice on their part either of honour or emolument*, subscribe to the present Charter; nay, we are of opinion that they cannot, in the end, help doing so; and we feel quite assured that in so doing, *in the long run*, so far from regret, they will experience unmingled, permanent satisfaction in having pursued so wise and salutary a line of professional policy.

The ink could hardly have been dry upon the foregoing remarks—penned on the 9th ult.—when we received the following excellent running commentary on articles contained in our former Number. Every body acquainted with his writing and speaking will recognize in them the manly upright style of Mr. Tombs:—

To the Editors of "The Veterinarian."

Stratford-on-Avon, Sept. 10, 1846.

Gentlemen,—I TAKE this opportunity, through the medium of your journal, in tendering my cordial thanks, with that of several other practitioners whom I have conversed with lately, to the members of the Council of the Royal College of Veterinary Surgeons for nobly resisting the encroachments attempted on our Charter. Undoubtedly, the members of the Council would be sup-

ported by the majority of the profession in making any alterations in the Charter having a tendency to benefit the veterinary colleges and the profession; but such a plan as that recently proposed, if carried into effect, would have rendered the Charter perfectly useless. One would suppose that such an absurd scheme was not devised by a person of the nineteenth century; it appears more like an antediluvian project,—the idea of establishing a veterinary board is preposterous. Do the professors of the veterinary colleges think that the profession would so far succumb to them as to permit the acts of the Council—their elected representatives—to be superseded or confirmed by a veterinary board? If so, they are monstrously deceived. Do they consider themselves in possession of superior veterinary knowledge to others of the profession? If they do, in that they are wading in error; and why then wish to make the whole profession subservient to them? or are they actuated by interested motives? If the latter, I blush for them. If they are anxious to be members of the Council, the same course is open to them in common with others of the profession, viz. *election*. Why are they desirous of taking an active part at the examinations of the pupils? They may rest satisfied on that point, that the present examiners will do justice to them and the pupils as long as the latter are efficiently taught. I see no reasonable grounds whatever for making these innovations in the Charter; therefore I regret exceedingly to be under the necessity of recording my disapprobation, with that of many old labourers in the same field, of the conduct lately pursued by the Professors of the London and Edinburgh Veterinary Colleges towards the Council, and, I may add, the profession at large.

The letter from Mr. Henderson, in this month's VETERINARIAN, contains a gloomy fact for country practitioners. Not only are the diseases and treatment of domesticated animals taught at the Hoddesdon Agricultural Institution, but at the Cirencester Agricultural College, too. Teaching chemistry to agricultural pupils, so far as relates to manures and the soil, is founded in wisdom; but to teach them the diseases and treatment of cattle, is trenching too much on our profession, and will, I am fearful, blight our best cherished hopes; viz. that of a more general treatment of horned

cattle. It has been a growing hope with us to extend our cattle practice, since railroads have injured the horse practice; but, alas, our hopes are delusive! What with teaching agricultural pupils the medical management of sick animals, and the Cattle Insurance Society's sanctioning farmers to call in farriers and cowleeches to treat insured stock, and the host of farriers that are everywhere to be met with, assuming the title of veterinary surgeon, the veterinary profession will become an unprofitable and worthless calling. I consider the system of teaching agriculturists the mode of treating sick cattle an unjust inroad on our practice. Suppose—which is equally consistent—that they were taught how to treat their own husbandmen when ill, what would the surgeon say?—why, resist such infringements on his profession with indignation and disgust; and why should not we, as members of a liberal profession, enjoy the same privileges as the members of the medical profession?

I have read with pleasure Mr. Percivall's description and treatment of bone spavin. His strongly recommending local bleeding at the onset of hock lameness is both judicious and scientific. I invariably have recourse to copious local blood-lettings in lameness of the stifle, hock, shoulder, knee, pastern, and foot. I am surprised to find many modern veterinarians adhere to the old practice of bleeding from the jugular vein in all cases of lameness where bleeding is required, when such decided benefit accrues from local bleeding. I am more sanguine about the effects of the actual cautery in protracted cases of spavin than Mr. Percivall. Deep firing and rest I find of infinite value in lessening the lameness, and sometimes getting rid of it altogether. If a second firing does no good, I bore down on the bony substance with a budding-iron, and introduce a mineral caustic with the happiest result; but rest, and *strict rest*, too, must be enjoined, otherwise we have dangerous sloughing of the parts. I have met with cases where the animal has been put to active work immediately after the caustic has been introduced: violent inflammation has taken place, extensive and deep sloughing, escape of synovia from the joint, caries of the bones, and, ultimately, death in its most aggravated form.

Some time ago I perused a letter or two in THE VETERINARIAN, by Mr. W. A. Cherry, on knee joint lameness. It is an interest-

ing subject, and I cannot conceive why it has lain so long dormant. It is a lameness more frequent than is generally supposed. I have had similar cases many years ago. It is a lameness sometimes difficult to detect, inasmuch as we have no other symptom for our guidance than an inability to flex the joint: at other times we have, in addition to this symptom, heat, pain, and swelling. The most successful treatment is opening the vein immediately below the knee, and abstracting large quantities of blood therefrom—cold applications, physic, and rest. Should there be a permanent enlargement, and the lameness continue, I fire, and, occasionally, a second time, with an astonishingly good effect. I know two or three horses at work now that I fired many years since for lamenesses in the knee joint: they are perfectly upright, but the joints are a little enlarged. We sometimes meet with constitutional diseases of the knee-joints in horses and cows, which invariably end in anchylosis. I have by me a beautiful preparation of an anchylosed knee-joint of a cow, evidently constitutional, as I was an eye-witness to the disease in all its stages.

I am, Gentlemen,

Your obedient servant,

JNO. TOMBS.

P.S.—These are my sentiments, Messrs. Editors; but pray excuse the hasty manner in which they are jumbled together.—J. T.

The report of this month of the proceedings of Council is short, but it is full of interest. The Councillors are unremitting in their work, and they are doing it bravely; and, therefore, it behoves all who have their profession at heart to lend their aid in every way in their power. The correspondence going on with the Hon. Mr. Mark Phillips, cannot fail of bringing things to an issue in that quarter. What the Home Secretary's sentiments or opinions may be, we have little means of learning; all we pretend to know about the matter is, that, standing upon the broad *legal* basis our Charter does, and upheld as it is by the BODY of the veterinary profession, no authority could, with any sort of colouring or justice, presume to alter or interfere with it. The schools may petition for, and may obtain, exclusive charters for them-

selves; and *exclusive* enough, we have a notion, *give them time*, they will find such charters turn out to be; but, for our present *original* Charter, after it has been granted by our most gracious Sovereign, at the express recommendation of her Secretary for Home Affairs, that must be held sacred from the State pruning-knife.

We quite agree with Mr. W. A. Cherry, that what Mr. Phillips has asked for should be expressly given him, and that we ought to be cautious how we offer him *more;* and, farther, that, supposing it to be advisable to send a "memorial" to the Home Office, praying our Charter may continue intact, such memorial should be made a *separate* proceeding. It would, undoubtedly, lessen its weight to send it in the same packet with the letter, &c.

We are happy to find steps are being taken to draw up petitions to both Houses of Parliament. The recess will afford ample time for their judicious concoction.

There is one other business—and that not the least in importance—just now engaging the attention of Council; which is the REGISTRATION of the names of the members of the Royal College of Veterinary Surgeons. It will be remembered that registration formed one of the earliest occupations of the Veterinary Committee, and that, with the materials they had and were able to collect, they drew up a more extensive and correct "List of Veterinary Surgeons" than had before existed. After all, however, the list was any thing but perfect. And when there comes to be considered the difficulties they encountered in obtaining information, and how scanty that information too often proved, together with the short time they gave themselves to accomplish their work, the Committee will not be blamed for not producing a more correct and finished work of registry.

On the present occasion, however, it is to be hoped, and indeed expected, that the labour will be attended with more success. The Council are issuing a Circular as extensively as circumstances will enable them to do, and they have framed the Circular in such a form that every Member to whom it is sent will find no trouble

or difficulty whatever in filling it up. And so, it is anxiously hoped, that members will bestir themselves on an occasion of so much importance, not confining themselves merely to the filling in of their own name, but by affording, in the columns set apart for that purpose, all and every information in their power, it being intended, so soon as the list shall be deemed complete, to print it *in parts*, and publish each respective part in the district of those whose names it will contain; thereby giving the public an opportunity of knowing who are, and—by inference—who are not, members of the Royal College of Veterinary Surgeons. Moreover, a full and correct list of members will be requisite for the Committee appointed to prepare the petitions to Parliament. Such members whose addresses are not known, or incorrectly known, will have the kindness to attend to the advertisement upon our wrapper.

We subjoin a copy of the "Circular:" should any Member not have received one, a letter addressed to Mr. Gabriel (the Secretary), Rolls Buildings, Fetter Lane, will not fail to bring him one by return of post.

COPY OF THE CIRCULAR.

Rolls Buildings, Fetter Lane, London,
September, 1846.

Sir,—The Registry of the Members of the Royal College of Veterinary Surgeons being found to be very imperfect, and the College having admitted many new Members the addresses of whom are not known, the Council of the Royal College of Veterinary Surgeons have appointed a Committee to collect information and arrange the same, preparatory to the publication of a new Registration List.

Such information as you may be able to furnish under any of the following heads will confer an obligation on the Committee.

The object of the following inquiries being the protection of the Certified Members, and the removal of the liabilities under which they at present labour (an application to Parliament for this purpose being in contemplation), as well as the improvement of the Registration List, a speedy answer will oblige.

I am, Sir,
Your obedient servant,
W. Arthur Cherry,
Hon. Sec. to the Registration Committee.

ANSWERS.

1. Your Christian and Surname at full length? .

2. Your Residence? . . . . . .

3. The Date of your Diploma? . . . . . .

4. Whether you graduated at the London or the Edinburgh College? . . . . . .

5. Do you know of any M.R.C.V.S. who has lately changed his Residence? . . .

6. Do you know of the Death of any M.R.C.V.S. that has taken place recently, or within ten Years? . . .

7. Will you state the Names and Places of Residence of such M.R.C.V.S. as live in your Neighbourhood? . . . .

8. Are there in your Neighbourhood any Persons calling themselves "Veterinary Surgeons" who have not received a Diploma? . . . . . .

9. Whether such Persons (if any) have ever studied at either of the Colleges of London or Edinburgh, or have been brought up from their Youth in the Practice of Farriery? . . . . .

PROCEEDINGS OF THE COUNCIL OF THE ROYAL COLLEGE OF VETERINARY SURGEONS.

Sitting of September 7, 1846.

Present—the PRESIDENT, the SECRETARY, Messrs. J. TURNER, ERNES, CHERRY, sen., MAYHEW, W. ARTHUR CHERRY, and HENDERSON.

THE minutes of the last sitting being read and confirmed, the Secretary opened the business of the evening by stating that the time had arrived when a reply from the Council to the letter addressed to them from Mr. Mark Phillips, of the Home Office, asking for the result of the interview between a deputation of the Council and Mr. Manners Sutton, held in November last, and in which it was stated that no entry could be found in the Home Office of the result of that meeting, and generally opening afresh the question of the alterations that were sought to be made in the Charter; and a reply to this letter having been deferred from time to time, pending the result of the interview with the Governors, and the consideration of their proposed alterations, such having been disposed of, he now proposed that a short introductory letter should be sent by the President, together with three documents, viz. 1st, the report from the deputation to the Governors of the Royal Veterinary College; 2d, the Charter, and the alterations as proposed by that body; 3d, the reply of the Council to those proposed alterations. He then read a sketch of a letter to accompany these documents.

Mr. Ernes thought that the proposed letter was not sufficiently strong; that a petition should also be sent, praying that the present Charter be not interfered with.

Mr. J. Turner supported this view, considering that some steps of this kind should be taken.

Mr. Mayhew also strongly supported the same, urging that the Council ought to memorialize the Government, and that he thought the best time to do so was that of sending the reply to Mr. Mark Phillips' letter.

Mr. W. Arthur Cherry objected to the sending of *three* documents only; that the question expressly asked by Mr. Mark Phillips was not at all noticed, namely, the result of the deputation's interview with Mr. Manners Sutton in November last; this we were bound to give, if we gave any answer at all: further, that it was bad policy to mix up two distinct questions, for a memorial and a reply to a letter were distinct, and the mixing up the two

would only weaken both. Again; the Memorial, such as had been proposed, was of too important a nature to be so incorporated as to run the chance of its not being attended to; he would, therefore, suggest that they be treated as two distinct questions.

The President strongly supported both these views.

Mr. Mark Phillips' letter was then read; and, after a careful investigation, it was decided that, in addition to the documents already named, the report of the result of that interview, drawn up by the President and laid before the Council, and which was published in the Second Report of the Council (vide VETERINARIAN for June 1846, p. 344), should be added, and the Secretary was directed to prepare the same, and the President requested to forward them to the Home Office without delay.

Mr. J. Turner moved, and *Mr. W. Arthur Cherry* seconded, "That a letter in accordance with the sketch given be adopted," which was unanimously carried.

It having been decided that the Memorial should be a distinct subject,

Mr. Mayhew moved, and *Mr. J. Turner* seconded, "That a memorial be prepared for the purpose of being laid before the Secretary of State for the Home Department." Carried unanimously.

Mr. Ernes moved, and *Mr. J. Turner* seconded, "That a Committee, consisting of Messrs. Mayhew, Gabriel, and W. Arthur Cherry, be appointed to prepare the memorial." Carried.

Mr. Henderson's motion, of which notice had been given some time since, that "Any letters or communications which were not couched in proper language or form should not be admissible, but be at once rejected without any further notice," being seconded by *Mr. W. Arthur Cherry*, was also carried.

Mr. Mayhew moved, and *Mr. Field* seconded, "That measures be taken to collect all necessary information preparatory to the drawing up of petitions to both Houses of Parliament," was, after a few general remarks by different members of its being a very desirable object, carried unanimously.

Mr. J. Turner moved, seconded by *Mr. Mayhew*, "That the following gentlemen form a committee to carry out the last motion: Messrs. Field, Gabriel, Ernes, Mayhew, Henderson, W. Arthur Cherry, and W. C. Spooner, Southampton." Carried.

Mr. W. A. Cherry's motion to prepare and arrange all matter connected with the Registry preparatory to the publication of a new list, was seconded by *Mr. Gabriel*, and carried. "That a committee to carry out the same, consisting of Messrs. Ernes, Braby, T. Walton Mayer, Mayhew, and W. Arthur Cherry," was also carried.

Mr. Mayhew's motion regarding Dr. Mercer's conduct, of which notice had been given at the last sitting, was, after a good deal of discussion, carried, being seconded by *Mr. W. Arthur Cherry;* and the Secretary was directed to write to Dr. Mercer, inquiring of that gentlemen whether the statement respecting his having given a report regarding the late examination at Edinburgh to the Highland Society, not having given such information to the Council of the Royal College of Veterinary Surgeons, was correct or not?

Mr. Ernes gave notice of motion; and, after a very interesting conversation respecting the apprenticeship clause, which chiefly tended towards the importance and necessity of such a clause, the sitting broke up.

ON DIT.

A RUMOUR is current, that a room is being erected for the purpose of examining pupils in at the Royal Veterinary College. How they are to get examiners to sit in it has not yet transpired. Though the general system of all proceedings connected with that institution has always been eccentric, still, such an idea as the above seems so utterly ridiculous, that we can hardly credit it. Mrs. Glass tells us to first catch our hare: but if the rumour has any truth in it, such does not seem to be "college" doctrine. It may prove like the man who, having sold the lion's skin, was killed in the chace endeavouring to obtain it.

WE have heard, on good authority, that the Committee appointed by the Council to prepare a Memorial to be sent to the Secretary of State for the Home Department have had several meetings, and that they have prepared a Memorial ready for approval by the Council at their next sitting, Wednesday the 30th September; and, if we are not misinformed, the Memorial will be of great service to the good cause, being mild in its tone but strong in its matter, based on the causes which led to the application being made to the Crown for a Charter of Incorporation, the inefficient and neglected state of the Schools, and the efforts that have been made, and are still making, by the Council of the Royal College of Veterinary Surgeons to remedy the various evils existing in the very foundations of our profession, and which, unless removed, will inevitably destroy the body corporate, and have been the cause of the very low estimation in which the veterinary profession has been so long held. We shall endeavour to obtain a copy for our next number.—ED. VET.

THE

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TREATMENT OF SPAVIN.

By WILLIAM PERCIVALL, *M.R.C.S. and V.S.*

[Continued from page 486.]

FIRING.

FEARFUL and formidable as the operation of firing must be admitted to be, thirty years and upwards of observation and experience of my own, tempered by a regard to the opinions of others thereupon, has brought the conclusion home to me, that, for the radical and permanent cure of articular spavin, it is a remedy paramount to all others. In the inchoate stages of spavin, we have seen that topical blood-letting, with fomentation, physic, and rest, frequently restores the horse to soundness. These remedies failing, blisters, setons, stimulants, and other local applications, at times, succeed. From the day, however, that the case of spavin becomes confirmed, inveterate, chronic—in such cases, in fact, as give us reason for apprehension of return of lameness, the actual cautery is the remedy alone to be confided in. The ancient practice was—and that practice, backed both by humanity and reason, has been handed down to the present generation of veterinarians—before so severe and painful an operation as firing was had recourse to, to make trial of *mild* remedies; and willingly would I counsel my professional brethren to pursue the same philanthropic course of treatment, did not experience in essays of the kind teach me, that, in such cases as I have described above, they have seldom proved successful, at least, hardly ever permanently so; and that the actual cautery, resorted to at last through compulsion, was, by so much as its employment had been deferred, lessened in its chance of success.

"PREPARATION FOR FIRING," as it is called, will be required in all cases where it is intended to apply the cautery deeply and extensively, and will be advisable even though so circumscribed be the fired surface as it is in the case of spavin. And the topical blood-letting and physic, &c., employed for the cure of recent spavin, though they fail to remove the lameness, probably through the case being of that antecedent date that relief is hardly to be expected from them, will be well adapted to bring about this desirable condition of body. So far, therefore, from such antiphlogistic treatment being thrown away, and the time it has occupied being regarded as so much time and labour lost, it will turn out to be the best preparative, local as well as constitutional, we could have instituted for an operation so apt to create excessive inflammation and consequent constitutional disorder, as firing; while the fomentation "softens" the skin and renders it more susceptible of the fire*, the lowering of the system prepares it to receive the shock apt to be occasioned thereby.

SEVERELY PAINFUL AND IRRITATING AS FIRING is known to be, it sounds any thing but agreeable, even to the ears of professional men, to hear persons—sporting gentlemen and others—ordering that their horses be fired for this or that trifling defect, the nature of which they know little or nothing about, with as much *sang froid* as they issue an order for bridling and saddling their hacks or hunters. The phrase "firing," to them, seems to convey no consequences with it. Scoring a living horse's limbs appears to them no more than a flea-bite. And yet, before now, have horses died in consequence of the pain and irritation occasioned by firing. Mr. Spooner† mentions the case of a horse that was destroyed from being fired: nay, horses have died from having their legs blistered even. An instance of this came under my own observation.

A veterinary surgeon, a good practitioner, and a man of many years' experience, killed a horse of his own in this way. It was a three-parts bred horse, and, no doubt, an irritable subject, and possibly not duly prepared, he being, rather in haste, required to be blistered or fired on account of staleness in his legs. Unfortunately, and certainly injudiciously, the four legs were *simultaneously* blistered, with blistering ointment such as was at that day—the year 1821—in common use, containing a small proportion of corrosive sublimate. The legs took to swelling more than they ordinarily do after the application of blisters, and yet not to a degree to create alarm. They, however, commenced discharging from their surfaces about the usual time, but rather prematurely

* Solleysel's View of Local Preparatives.

† See VETERINARIAN for 1837, p. 147-8.

the discharge abated; and on the fourth day after being fired the animal was seized with oppression in his breathing, manifesting symptoms of fever, loss of spirits and appetite, &c. Feeling alarmed at this attack, his owner called on me to come and consult with him on the case. This was about nine o'clock on the morning of the fifth day. I found the patient breathing hard and oppressively, with dilated nostrils, through which the Schneiderian membrane was seen red, like scarlet; and it was told me he had ejected through his nose, a little while before, a frothy coffee-coloured fluid, having a disagreeable odour. The hind limbs were swollen to that degree, that the thighs partook of the tumefaction; but the swelling of the fore limbs had not as yet reached the arms. His pulse was not more than 60. But there was an expression of pain and anxiety in his countenance too significant to be mistaken, and he was restless, though loose in his box; ever and anon looking back at his flanks, or, in distress, thrusting his nose out at the door of his box, seeking the cold air. His legs were with all possible haste got into warm baths, and he was bled, and took medicine, &c. The blood, as it flowed, proved treacley in consistence, dark even to blackness, and quickly congealed; though, after all, the coagulum turned out any thing but a firm one. No relief being obtained through the day by what had been done in the morning, at half-past seven o'clock at night he was bled again. Now, however, a gallon of blood was with great difficulty obtained. After this the mucous membranes became pale—the mouth and lips and extremities cold—the pupils dilated—respiration hurried. At nine o'clock all his symptoms had increased. His flanks were now beating at the rate of 66 per minute—his pulse was imperceptible at the jaw, and at the heart beating too feebly and flutteringly to be distinctly counted. Afterwards, he broke out, over his whole body, into a profuse sweat. His extremities had a deathlike feel—his eyes staring, wild, and delirious-looking—the pupils unaffected even by the light of a candle. At twelve o'clock he died. Thus, in seventeen hours from his first manifestation of constitutional irritation, was this wretched horse a dead carcass. The *post-mortem* appearances—such, at least, as could be viewed as the result of so short an illness—consisted in morbid aspects of the air-passages, pleura, and lungs. The lining membrane of the trachea and bronchial tubes had turned black from inflammation, appearing as though mortification had actually taken, or was on the eve of taking, place. There was also some effusion into the substance of the lungs, though these organs were in a tuberculous condition from former disease.

The above case is instructive to us in a double point of view. First, it teaches us caution in blistering—and *à fortiori* in firing—horses, and especially warns us against doing so in *the four*

limbs simultaneously; and, secondly, it shews us that, in horses known or suspected to have any disease of chest, firing and blistering are doubly hazardous operations. Firing or blistering a circumscribed surface, like the seat of spavin, it is true, is of no great moment; it is when we come to fire—and *deeply* fire—the legs from fetlocks to knees or hocks, that evil consequences are to be dreaded in irritable constitutioned horses, or such as are unprepared to endure so great an amount of pain and irritation.

THE ANCIENTNESS OF FIRING is notorious. Solleysell tells us, Arabians, Turks, and Italians practised it, to strengthen their horses' limbs. Gibson likewise informs us that the practice "was first borrowed from the Arabians," and that "the Arabians fired their horses *to strengthen their limbs**."

VEGETIUS has a very interesting chapter "OF THE MANNER OF GIVING THE FIRE, AND THE CAUTERY †." In it we learn, "to promote the cure," that "authors have pitched upon a twofold remedy, viz. *the lessening of the quantity of blood, and the burning of the cautery*, by which relaxed parts are *strengthened* and confirmed, the cautery being "*the very last thing to be done* for performing the cure." "The burning constringes or binds fast the parts that are relaxed,"—"takes clean away cankered sores,"—"recalls to their own natural state the parts of the body which from any cause whatsoever have been disordered, and put out of their natural state;"—"for when you have broken the skin with the red-hot iron, all the distempered matter is concocted and maturated, and, being dissolved by the benefit of the fire, runs out with the humour through the holes made by the cautery, and so the disorder is cured, and the pain removed." "But you must know that cauteries made of COPPER are more effectual to perform a cure than those made of iron." "Sometimes (in firing) the points of the cautery are thrust into the part. Sometimes the red-hot iron is drawn along so as to form the similitude of a line or of little palm branches; for in this the skill of the horse-doctor is commended, if he cures the animal with the cautery, so as not to deform it. But according to the place where the distemper lies, and to the state and condition of the skin, the cauteries are impressed with more force, or more lightly,"—"** the cure ought first to be attempted by letting blood, drenches, ointments, &c.; and if they are of no benefit, last of all the fire is applied."

SOLLEYSELL‡ entertains strange notions about the influence of

* See vol. i, edit. 2, of his "New Treatise on the Diseases of Horses," p. 165.

† Chap. xxviii, p. 57, of the English translation, by the author of Columella Translated. London, 1748.

Complcat Horseman, Hope's Translation, edit. ii, pp. 283-6.

the moon on fired horses, directing that the "fire" be given, unless in cases "of extream necessity," always "during the wane of the moon." "The best time," he says, "is about five or six days after the full moon."—Solleysell appeared to have reason to dread deep firing; for he cautions us against "piercing the skin with red-hot *knives*," as he calls the firing-irons; his rules of proceeding being to—"1. Press not too hard upon the part. 2. Let the knife be red hot, not flaming. 3. Let it be heated in a *charcoal* fire."—"Unless in cases of extream necessity you must never pierce the skin, but only sear it gently, and by degrees, till it be of a reddish colour, resembling a cherry:"—"'tis incomparably better to make use of a moderately hot knife, and to draw the same stroke five or six times over, than to make it at one dash with a very hot knife."—"Seven or eight days before the application of the fire, the parts must be *softened* either with baths or fomentations."—"The part being softened, you must proceed to give the fire gently, but dexterously, according to the nature and situation of the part, either in the form of a *feather, rose, shield, palm of the hand,* or any other convenient figure."—"The fire thus dexterously and lightly given to a part that is already softened, will produce a much more considerable effect than the most violent fire that can be applied without a due preparation of the part by softening remedies."—"You must give the fire with a knife that has a pretty thin edge, but rather round than sharp, and always rub it on a piece of wood when you take it out of the fire, for the ashes that stick to it would cut and fester the skin. You must also observe to *follow the hair,* that it may cover the marks after the sores are healed. Thus, for example, when you have occasion to give fire on the sinews of the fore legs, you must draw a line or rase downwards, between the sinew and the bone on both sides, and three or four more upon the sinews at equal distances, rather than imitate those who draw cross lines, as if they were going to broil a fish."—"I have hitherto used *copper* knives with very good success, and I shall always prefer them before gold, though not before silver."—"The effect of the fire lasts twenty-seven days, which may be divided into three equal periods, for its *agglutination, state,* and *declination*."—"'Twould be convenient to let the horse repose *all the while.* But the shortest time of rest that can be allowed on this occasion is eighteen days."—Not even gentle walking exercise, half an hour daily, which will cause the fire to "operate more vigorously," must be commenced until "eighteen days after giving the fire."—"I may justly reckon myself among the number," adds Solleysell, "who have brought this method (firing) into fashion at Paris;"—and "I think I may be allowed to say"—"I have done a consider-

able service to the public."—"About twenty-five years ago, the giving of the fire was reckoned to be as effectual a way to dispatch a horse as the discharging of a musket at his head; but now the case is altered, and this method is commonly practised without the least scruple."

GIBSON*, in his relation of the case of "a very fine young horse," who from hunting had "put out a spavin," and who was given up to have done "what he (Gibson) would with him," gives us the following account of firing: "Very strong causticks" having failed to afford relief, Gibson "judged it *safer* (than venturing farther with caustics) to fire." And the following constituted his "manner of firing a bone spavin:"—"The irons for the operation were made in the shape of a fleam, that they might go deep into the substance of the spavin, only they were not pointed as a fleam, but rounded on the face, and made thick towards the back, that they might retain the heat. In this operation some small bloodvessels were cut through, which could not be avoided, and caused pretty large effusion of blood, till it was stopped with styptic. The wound was about half an inch deep, and an inch in length, with two or three short strokes or lines on each side. It was kept with a dressing of dry tow till the third day, that the bleeding might be fully stopped: nothing was discharged for several days but a glut of viscid water, during which time he was in great pain, and his hock swelled very much, which symptom was removed by fomentations, such as are recommended for punctured wounds. The first dressings were only turpentine spread on tow, afterwards mixed with precipitate finely ground, viz. two drachms to an ounce of turpentine." It was "two months" before "the skin began to close over the wound."—"In the space of three months the sore was quite healed up, and covered with hair, except about the bigness of a farthing, over which I caused a defensive plaster to be laid. He was purged during the time of his cure, and in four months he went through all his exercises, and hunted the first season, and every season afterwards, perfectly free from lameness."

IN THE FOREGOING EXTRACTS several observations strike us forcibly for their accuracy and truth, and their applicability, and even use that is constantly made of them, at the present time. One is, that it is our duty to make trial of *mild* or *simple* means of cure before we call into our aid so harsh a measure as firing.

BLUNDEVILLE'S caution is, "not to be too hasty in giving the fire," but "to attempt, *first*, all other convenient remedies; and, when nothing will help, to make the fire our *last* refuge." Hu-

* Op. cit., at p. 604, vol. ii, p. 262.

manity would prompt us in *every* case to do so; but I fear that in too many cases we should discover, when it was late, that it had proved bad medical policy to have so acted. I must confess, there was a time when I should always have given a preference—a trial, at least—to simple and comparatively painless remedies, before I had recourse to firing; believing in Hippocrates' aphorism, that, "Quos cunque morbos medicamenta non sanant, ferrum sanat; quos ferrum non sanat, ignis sanat; quos vero ignis non sanat, insanabiles existimare oportet." The new lights, however, of late years thrown upon the pathology of spavin, together with the observation of the frequent recurrence of lameness after horses have been sent away "cured" of spavin by such mild means, have wrought, in this respect, an entire change in my practice. Viewing the case as one of *articular* spavin—of disease *within* as well as disease without the hock joint—after having prescribed topical blood-letting and fomentation, and physic, and low diet, and rest, even though it should turn out that the case has received so much benefit thereby as to be restored to soundness, my advice still is, the firing-iron had better be "run over" the hock to make *permanent* that which rest, and remedies so simple, have accomplished. Perhaps it will be asked here—Why not *blister* or *seton* the hock? My reply is, because neither blister nor seton is likely—has by experience been found—to confer that *lasting* benefit which the actual cautery has been proved to afford. This, however, is too weighty a question to be disposed of by naked assertion: it will have to be considered hereafter.

Another pointed observation of the ancients, and one we have never lost sight of, it having been handed down to us from generation to generation, is the *bracing* and *strengthening* power of firing. At one time there were breeders, and other horse-persons, in our own country, who, like the Arabians, would have their foals' or colts' legs and joints fired with a view of "strengthening" them. Whatever effect of a sthenic description, however, firing may have upon legs or joints weakened by disease, I am unhesitatingly of opinion that no *sound* or normal parts can reap the same benefit from it; that, in short, we cannot improve that which is already, *of its kind*, perfect. We can neither "gild refined gold" nor add a "perfume to the violet."

THE FIRING IRON in use in our own day differs, as it would appear, little or nothing from the fleam-shaped one described by Gibson. Since firing has become a sort of *fashion*, one preferring it in the "similitude of a line," another in that of "little palm branches," or of a "feather," "rose," &c. &c., and that, in order to make the firing appear thus neat and pretty, it has become neces-

sary to have the horse *cast* to perform the operation, the firing irons have been made shorter in their shafts, and straighter or less curved in their blades: the material of which the cautery is made being *iron* in preference to the *copper*, as used by Vegetius and Solleysell. In point of *efficacy* it can make very little difference whether the lines or scores drawn with the firing iron be parallel or angular or crosswise: my own notion accords with Solleysell's, that they should be drawn "downwards," i.e. run parallel one to another. My rule is, that their direction in all cases be regulated *by the course of the hair*. It is certain that, so drawn, they leave less blemish than when drawn athwart the growth of the hair, and that it is equally as effectual as firing performed in any other way. The only drawback being—and it must be confessed this is a serious one—that, the proprietor of the fired horse not being so well pleased with the appearance of the work, "the skill of the horse-doctor" will fail to be so much "commended." This FANCY-FIRING, as it may be called, has, as I have before said, entailed the necessity of *casting* horses for the operation; and this, of itself, is an objection to it of no mean account; for when we come to consider how many accidents have occurred in casting, even under the most careful and judicious hands, and that every horse that is cast—although it must be acknowledged the chances against being hurt are very great in his favour—runs a risk, remote though it be, of injury, it certainly must be considered desirable for veterinarians to hold up and practise a method of firing which does not call for the throwing of the subject.

THE PRIMARY OR INSTANT EFFECT OF THE ACTUAL CAUTERY on the skin is to sear and to divide it: the division of the *cutis* being frequently attended—especially when the edge of the iron, instead of being rounded off, as it ought to be, is sharp—by some trifling hæmorrhage, and constantly by the destruction of such subcutaneous cellular tissue as the cautery happens to come in contact with. Pain, felt or expressed a great deal more by some horses than by others, accompanies the searing; annoyance from "the fire in the parts," and irritation follows, great or little in amount, according to the extent of surface fired, the depth or superficiality of the firing, the susceptibility or idiosyncrasy of the subject, &c.

SECONDARY EFFECT.—For the first and second days after being fired—the hock being the part our observations in particular have reference to—nothing but the dry scores of the iron are observable. The hand applied to the surface may discover increased heat and tenderness, and probably fulness as well, of the part fired, or there may be general swelling of the limb; and yet, if

we may judge from the quietude the animal commonly evinces, while tied up in his stall, his general aspect, and his unimpaired appetite, no great pain appears to succeed this circumscribed application of the cautery. About the third day, reckoning the day of firing as the first, there will be noticeable, in addition to more or less swelling of the limb—which, should it not have come on the day before, will most likely become apparent enough now—*exudation*, in the form of dew-drops, of sero-albuminous fluid, tinged in those places which the iron has penetrated the deepest, with blood. On the fourth day, the swelling of the limb will have become augmented, and the liquid exudation, increased in quantity, will be observed oozing out from the fired places, trickling down the leg, staining white hair, wherever it comes upon it, of a bright orange yellow colour, while at the bottom of the deepest scores there will, about this period, be visible some pus formations. The fifth day will disclose purulent secretion pretty generally from such parts as gave omen of it the day before: any scores that may not have penetrated the *cutis* continuing to be gummed up with the albuminous exudation. The tumefaction of the limb—the horse having been kept all the while standing, fastened up in his stall—is now at its highest; and this is the period when the horse should be removed into a loose box, and have his liberty given to him, taking the precaution to put a cradle upon his neck for fear of his gnawing or biting his fired hock.

From this time there will be daily augmentation of the discharges, the purulent, as the case proceeds, prevailing over the serous and albuminous; and, shortly after he has had it in his power to take exercise, there will be observed manifest decline of the general swelling of the limb. The secretion of pus taking place now from the surface of the cutis, as well as from the ulcerated scores, the matter lodges, and burrows underneath the deadened exfoliating cuticle, forming pouches under it, or little abscesses; and the result of this detention of pus in contact with the cutis is, ulceration of the latter, destruction of its substance, and with it of the bulbs or roots of the hair; and this ulcerative process goes on—supposing the lodgment of pus be not disturbed—to the entire destruction of the skin; so that, in the end, the eschars of cuticle forced off in patches by the accumulation and weight of purulent matter upon them, the cutis presents a perfectly raw surface—a sheet of ulceration, in fact. This is succeeded by a *healing* process, bringing us to the

Tertiary or remote Effects of Firing. The ulcerative action is no sooner arrested than a granulative process commences; and surprising it is to observe how rapidly the cherry-cheeked granulations form and spread, filling up the chasms and holes

ulceration has made. As fast as the deficiences are made good, the remnants of skin—if any be left—are stretched abroad to cover them; and soon, here and there, will little insulated patches of hair be seen springing up on such parts as still retain the pilous bulbs entire. Such places as the old skin, by a natural process of stretching or spreading—"contracting," as it is called—cannot be made to cover, must be furnished with new skin; and skin-making is not only a tardy but an expensive process in the animal economy: at least, so we have a right to argue it to be, from the space of time it occupies, and the evident efforts of Nature to make the most of the old skin. What with the stretching or spreading of the old, and the formation of the new skin in barely sufficient breadth to meet the demands of the case, the healed cicatrized part has a tense and compact feel it did not possess before, and this apparent tightening of the skin it is which, as it is said, "acts as a bandage"—bracing and "strengthening" the fired part. I suspect, however, a good deal of fallacy in this assumption of "bandage." The inflammation so long pervading these parts has caused effusion of adhesive matter into the subcutaneous cellular tissue, the result of which is agglutination of the *cutis vera* to the parts underneath—the *periosteum, peri-chondrium, tendinous thecæ*, &c., which agglutinated condition of parts it is that, in the absence of the cellular connexion through which they obtained motion upon one another before, gives the skin the sensation of being *tightened* or *braced:* relaxation of it not again taking place until the solid effusion into the cells of the subcutaneous reticular membrane becomes absorbed.

[To be continued.]

REMARKS ON "A LECTURE ON THE ORGANIZATION OF LIVING BEINGS,"

BY MR. PEARSON B. FERGUSON, VETERINARY SURGEON, BACHELOR'S WALK, DUBLIN; AND PUBLISHED IN THE "VETERINARY RECORD" OF JULY 1846.

By Mr. HAYCOCK, *Veterinary Surgeon, Member of the Veterinary College, Edinburgh, King-street, Huddersfield.*

"They would think themselves miserable in a patched coat, and yet their minds appear in a piebald livery of coarse patches and borrowed shreds."—LOCKE.

Messrs. Editors,

Sirs,—ONE of the many annoyances which beset the path of men eminent in science and literature is that of having their published thoughts and observations pilfered by a number of miserable

scribblers, who ever crawl around them, catching at what may appear, and eagerly appropriating to themselves all they can grasp, and afterwards endeavour to palm such thefts upon the public as the original production of their own minds. That such occurrences do take place, every writer of celebrity can testify from bitter experience. The greatest men in connexion with medical science may be mentioned in particular as having undergone these trials to a merciless extent: of such I may name, Harvey, Hunter, and Sir Charles Bell, of our own day; they each immortalized himself by the greatness of his discoveries; they each received the grossest abuse; their thoughts and labours in the wide field of discovery were successively ridiculed, denied, and afterwards claimed by others: these are facts so well known, that to dwell farther upon them would be a mere waste of time and words. I may remark, however, that "pickers and stealers" of this nature arrange themselves into two classes; first, those who boldly and with the most impudent assurance declare that they are the parents of such and such discoveries, and that they were the first to announce them to the world. Of this class I need not say much—their object is manifest at a glance; and the only thing which excites our surprise is, the impudence displayed in the endeavour to cheat us out of our discernment by their virtually asserting that we are not in the possession of such a faculty. The second class, however, adopt quite the opposite course: they assume a lofty, but at the same time a quiet tone of bearing; they glide in upon the reader with a face of the greatest possible modesty; they allude to the writings and labours of others as though they conferred a favour upon them by so doing; in short, they step composedly into the ranks of men of the highest acknowledged attainments with the assurance that the right of their doing so will never be questioned; and with this seeming modesty the silent observer is pleased, until he begins to look somewhat closer, and then he discovers that the whole—to use a simile—are nothing more than jackdaws adorned with the feathers of the peacock. To strip such of their stolen plumage—to hold them up to the indignation of every honest and candid mind—is the duty of all who respect the pioneers of science and men of sterling merit.

These remarks are elicited in consequence of reading what pretends to be an original "lecture on the organization of living beings," by a Mr. Pearson B. Ferguson, of Dublin, and published in the *Veterinary Record* of July last, certain parts of which lecture I shall endeavour to shew are not original, but merely extracted from the works of various authors, without any acknowledgment from whence he has appropriated his materials. Such portions of

the Lecture in question are all *but* copied verbatim from the first volume of the "Physiological Anatomy and Physiology of Man," by Todd and Bowman, and from "The Principles of General and Comparative Physiology," by Dr. Carpenter; works which may not be in the hands of every veterinary surgeon: so that I shall select the parts to which I allude, and place them in juxta-position* with their originals, by which the reader will be enabled to judge whether or not I have sufficient grounds for making this exposure. The Lecture commences with the following paragraph:—page 201, of the *Veterinary Record,* vol. ii:—

"To discover and comprehend the laws which control and regulate the universe is the aim of natural philosophy. But the vastness of the field of study and the diversity of the phenomena in connexion with it are far above the capacity of a single human mind; a division of labour in their investigation has, therefore, been found not only convenient, but absolutely necessary. Thus, the various positions and movements of the planetary system have occupied astronomers; the surface of the earth, the composition and situation of its various strata, together with the treasures hidden within its womb, have employed geologists, chemists, and others interested in physical science; while the myriads of organized beings, whether animal or vegetable, that live in the air, dwell upon the land, or inhabit its rivers, lakes, seas, or vast oceans, are all so many objects for the investigation of the naturalist."

The introductory chapter of the work, entitled "Physiological Anatomy and Physiology of Man," commences thus:—

"The aim of all natural knowledge is to ascertain the laws which control and regulate the phenomena of the universe. So numerous and diversified are these phenomena, that a division of labour has been found not merely convenient, but absolutely necessary for the study of them. The position and movements of the planetary system, the crust of the earth, and its various component strata, the treasures hidden in its womb, the abundant vegetation that grows upon its surface or beneath its waters, and the numberless hosts of animals that dwell upon the land, or in the rivers, lakes, and seas, form separate branches of scientific investigation," &c. &c.

The above is so very glaring, that any observation on my part is uncalled for; I shall, therefore, pass on to pages 202 and 203 of the Lecture, wherein this *would-be-scientific writer,* in speaking of the qualities or properties which distinguish the organic from the inorganic kingdoms of nature, says,—

"Wherever mineral substances exhibit *definite figures,* they are bounded by straight lines and angles, owing to the arrangement of the ultimate particles of the mass, in obedience to laws of a process called crystallization. This phenomenon results from the tendency of the molecules to arrange themselves in a regular manner with respect to each other, and generally takes place with the utmost facility in most inorganic combinations, when placed in circumstances favourable to it. If, however, these circumstances are absent, another force, called simple adhesive attraction, comes into operation, and then the form of the mass is INDEFINITE or shapeless. In the or-

* In consequence of the peculiar wording of the remarks introducing some of the extracts, we find ourselves unable to follow Mr. Hancock's desired arrangement of placing the paragraphs side by side.—*Printers.*

ganic kingdom, on the other hand, we find the condition totally opposite; for every living being, from the highest in the animal creation down to the lowest cryptogamic plant in the vegetable, presents a distinctive character for every species, with limited variations amongst individuals. Here the form, instead of being circumscribed within planes and angles, generally manifests rounded outlines and convex surfaces."

The above is extracted from paragraph 14 of the "Principles of General and Comparative Physiology," by Dr. Carpenter, who, in reference to this quality of "form," says,—

"Wherever a definite FORM is exhibited by mineral substances, that form is bounded by straight lines and angles, and is the effect of the process termed CRYSTALLISATION. This process results from the tendency which evidently exists in particles of matter, especially when passing gradually from the gaseous or fluid to the solid state, to arrange themselves in a regular and conformable manner with regard to one another; and there is, perhaps, no inorganic element which is not capable of assuming such form, if placed in circumstances adapted to the manifestation of this tendency among its particles. But, on the other hand, if particles be not placed in circumstances favourable to this kind of union, and the simple molecular attraction, or attraction of cohesion, is exercised in bringing them together without any general control over their direction, an indefinite and shapeless figure is assumed. Neither of these conditions finds a parallel in the organised creation. From the lowest to the highest of living beings the shape is determinate for each individual, not only as a whole, but even as to each of its component parts; and instead of being circumscribed within angles and right lines, organised fabrics usually present a rounded outline and convex surface," &c. &c.

Can any thing be more palpable than this? But to proceed, Mr. Ferguson says, page 203,

"Again, with respect to size, it has been ascertained that the volume of inorganic masses entirely depends upon the number of particles constituting them."

Once more, he says in the same page—

"The limits, with respect to size or extent, are least obvious in the vegetable kingdom and the lowest animals. A tree may extend itself almost indefinitely; and some kinds of sea weed attain the length of many hundred feet, and yet their growth receives no check. The same remarks have also been made of those immense masses of coral, of which are composed so many islands and reefs in the Polynesian Archipelago."

For the original of this we must turn to paragraph 15 of Dr. Carpenter's work, who says—

"With regard to SIZE, again, nearly the same remarks apply; since the magnitude of inorganic masses is entirely dependent on the number of particles which can be brought to constitute them." * * *

"And, as in the former case, the *size* to which the inferior members of the animated kingdoms may increase, seems but little restricted in comparison with that of the higher classes; so that it is of no uncommon occurrence for some species of sea weed to attain a length of many hundred feet; and in those enormous masses of coral which compose so many islands and reefs in the Polynesian Archipelago," &c. &c.

The Lecture next goes on to speak of the "internal arrangement" of bodies; and upon this subject, page 204, it says—

"The most remarkable differences, however, between organized structures and inorganic masses, are observed in their internal arrangement. Every particle of a mineral body exhibits the same properties as those manifested by the entire mass. The minutest particle of chalk, for example, possesses the same properties as a mass of this substance as large as a mountain; and it matters not, in experimenting upon it, or any other salt except for the sake of convenience, whether the chemist operates upon a grain or a ton; every atom, therefore, may be considered as possessing a distinct individuality, which is an epitome of the whole; and hence a mineral mass is to be regarded as made up of an indefinite number of constituent particles, similar to it and to each other, but holding no farther relation among themselves than that which they derive from their juxta-position. Organized structure, on the other hand, receives its cognomen from being constituted of a number of distinct parts or organs, each having a texture, consistence, and form peculiar to itself, whence it derives its special character. Moreover, every organ is the instrument of a special function, which it performs in accordance with certain specific conditions; and the concurrence of all these actions is necessary for the maintenance of the structure in the healthy state, and for the prevention or reparation of those changes which result from the operation of chemical and physical forces. It will, therefore, be at once seen that, among all the different parts of an organized body, there is a MUTUAL DEPENDENCE which is quite distinct from that of mere proximity: for example, in a perfect plant, furnished with roots, stems, and leaves, the relation of the different parts to the well-being or integrity of the whole is strikingly obvious; since, if it be deprived of either set of them, the plant must perish; the organic structures becoming acted upon by chemical forces, and resolved into their ultimate elements, unless, indeed, it has within itself the power of replacing the lost parts."

Dr. Carpenter, in reference to the same subject, paragraph 16, page 12, says—

"Having considered the external form and size, we have now to compare the internal arrangement or AGGREGATION of the particles respectively composing organized structures and inorganic matter. And here we at once meet with a striking and remarkable difference: every particle of a mineral body in which there has been no admixture of constituents may exhibit the same properties as those possessed by the whole; and if there is a variation, it results only from an impurity or admixture of some other body.

"The chemist, in experimenting with any substance, cares not, therefore, except as a matter of convenience merely, whether a grain or a ton be the subject of his researches. The minutest atom of carbonate of lime has all the properties of a crystal of this substance, were it as large as a mountain. Hence we are to regard a mineral body as made up of an indefinite number of constituent particles, similar to it and to each other in properties, and having no further relation among themselves than that which they derive from their juxta-position. Each particle may be considered, therefore, as having a separate individuality. The living body, on the other hand, whether of a plant or animal, is made up of a number of organs, each of which has a peculiar texture and consistence; and it derives its character from the whole of these collectively. By their action with each other, and with external

agents, life is produced; and hence there is a relation between their elementary constituents much closer than that of proximity only, namely, that of mutual dependence; so that, as no one part can continue to exist without the rest, it cannot be regarded as possessing that separate individuality which belongs to the whole system alone. Thus, the perfect plant, which has roots, stem, and leaves, is an example of an organized structure in which the relation of every part to the integrity of the whole is sufficiently obvious; since every one is aware that, if completely deprived of any of these parts, the plant will perish, unless endowed with the power of replacing them."

If the reader will carefully compare the above quoted paragraphs, he will easily observe how the sentences composing the latter are shifted (if I may so express myself) backwards and forwards, to suit the purpose of this really contemptible plagiarist: indeed, the cool impudence of this individual is certainly surprising. But to again proceed, he says, page 206—

"For, what the parent communicates, in giving origin to a new being, is not the absolute substantial structure itself, so much as the POWER to APPROPRIATE certain parts of the surrounding elements," &c.

Dr. Carpenter, paragraph 18, pages 15 and 16, upon the same matter, says—

"For the parent communicates to its offspring not so much the structure itself, as the power of forming that structure from the surrounding elements."

The writer next informs us that

"Organized bodies are capable of being resolved by chemical analysis into ultimate elements, but the number of the simple elementary substances which may be obtained from these sources are only about seventeen; the remaining thirty-eight of the fifty-five found in the mineral world never becoming part of a living being. Of the four widely spread elements—oxygen, hydrogen, nitrogen, and carbon—two, *at least*, will be found in every organic compound; hence, as Dr. Prout has suggested, these four may be considered as the essential elements of organic matter; while the other simple substances are much less extensively diffused, and are found in smaller quantities, and therefore may be termed its incidental elements. The latter are sulphur, phosphorus, chlorine, sodium, potassium, calcium, magnesium, silicon, aluminum, iron, manganese, iodine, and bromine. Between these elementary substances and the perfect organized animal or vegetable texture, there intervenes a class of compounds, obtained in the early stages of the chemical analysis, which are called proximate principles. Such are gluten, starch, lignin, &c., from the vegetable kingdom; or proteine, gelatine, fibrine, and albumen, from the animal. From these, again, a great variety of compounds have, by various processes, been obtained, owing to the tendency in their aliments to enter into new combinations."

To trace the original of the above, we must now return to the first volume of Todd and Bowman's work, where we shall find the whole verbatim; one part of which is in page 6, and the remaining part is in page 7.

"Organized bodies are capable of being resolved, by chemical analysis, into the inorganic simple elements; but the list of simple substances which may be obtained from this source comprises only about seventeen. Of the

four widely spread elements, oxygen, hydrogen, nitrogen, and carbon, two, AT LEAST, will be found in every organic compound; hence, as Dr. Prout has suggested, these four may be conveniently distinguished as the ESSENTIAL elements of organic matter. The other simple substances are found in smaller quantities, and are less extensively diffused; these may be termed its INCIDENTAL elements. They are sulphur, phosphorus, chlorine, sodium, potassium, calcium, magnesium, silicon, aluminum, iron, manganese, iodine, and bromine; the last two are obtained almost exclusively from marine plants and animals. Between these elementary substances and the ORGANIZED animal or vegetable texture there intervenes a class of compounds called PROXIMATE principles," &c.—*Todd & Bowman*, page 6.

"Such are GLUTEN, STARCH, LIGNINE, from the vegetable textures; or ALBUMEN, FIBRINE, CASEINE, from the animal ones. From these again a great variety of compounds has been obtained by various processes owing to the tendency which their elements have to form new combinations."—*Todd & Bowman*, page 7.

The Lecture next treats upon the "origin" of "organized bodies." I quote from page 207.

"With respect to origin, some believe in spontaneous generation, and have supposed that out of decaying vegetable or animal matter may arise animals or plants of a species different from the originals. This idea I conceive to be most fallacious. Every plant, every animal, is the offspring of a parent, to which it bears a resemblance in all essential particulars. In fact, the maxim 'OMNE VIVUM EX OVO,' propounded by the illustrious Harvey, is the rule in the production of all organic beings. And it seems probable that, in those cases where a spontaneous generation was suspected, the seeds or the eggs, or perhaps the parents themselves, had been in a state called *dormant vitality*, concealed in the decaying matter, or floated to it by the surrounding atmosphere, and, finding themselves in conditions favourable to their development, manifested ACTIVE LIFE.

"Through the interesting researches of Schwann and Schleiden, it has been discovered that the simplest and most elementary form of matter in a state of organization is a cell," &c.

The concluding lines of the above quotation are taken from the concluding four lines of page 9, and the first two lines of page 10, of *Todd & Bowman;* while the first portion is from the last portion of page 10 of the same book. I shall, therefore, give the passages as they occur in *Todd & Bowman*'s work.

"The simplest and most elementary organic form with which we are acquainted is that of a cell, containing another within it, which again contains a granular body. This appears, from the interesting researches of Schleiden and Schwann, to be the primary form," &c. * * * * * *

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"In their origin, organized bodies are generally, if not always, derived from similar ones. Some have supposed that out of decaying vegetable or animal matter minute animals or plants of other kinds may be formed: but it seems most probable that in those cases in which they had been supposed to be formed, the seeds or eggs, or even the parents themselves, had been concealed in the decaying matter, or floated in the surrounding atmosphere. Recent experiments throw considerable doubt upon this doctrine of the SPONTANEOUS GENERATION of organized bodies, by shewing that neither vegetation nor the development of animalculæ will go on in fluids which have

been subjected to such processes as must inevitably kill whatever germs may have been diffused around or throughout them. In the present state of our knowledge it may be said, that the Harveian maxim, 'Omne vivum ex ovo,' is the rule," &c. &c.

The reader will perceive that the first quotation, viz. the one from the Lecture, is reversed in a twofold manner, if compared with the original; for not only is the paragraph itself so, but the sentences also which constitute it.

One more quotation, however, and for the present I have done with this Lecture. Page 209, he again says—

"How sublimely beautiful is this power that organized bodies possess of generating others; thus providing for the perpetual succession of living beings all over the earth! The divine command, 'Increase and multiply,' is thereby fulfilled. Every hour, nay, even every minute, ushers into life countless myriads of plants and animals to supply in profusion the havoc which death is continually making. In addition to the power of propagating their species, organized beings also enjoy one of preservation and reproduction of parts: thus, solutions of continuity, the loss of particular textures, whether resulting from disease or mechanical injury, can be repaired; and parts which have been removed may frequently be restored by a process of growth: while it is well known that among some plants and animals, if the individual be divided, each segment will become a perfect being. This power of reproduction, however, is proportionate to the simplicity of the structures, and the repetition of similar parts composing the complete organism; for the more complex the entire being, the greater is the mutual dependence of parts; and consequently the loss of a part will be more likely to endanger the well-being of the whole, and cannot, therefore, be renewed with the same facility. An example of the power of reproduction with which every one is familiar is the healing of wounds and the adhesion of divided surfaces."

By turning to the "Physiological Anatomy and Physiology of Man," page 11, we have the preceding almost word for word:

"How beautiful is the provision which this power, possessed by organized bodies, of generating others, affords for preserving a perpetual succession of living beings over the globe! The command, 'Increase and multiply,' has never ceased to be fulfilled from the moment it was uttered. Every hour, nay, every minute, brings into being countless myriads of plants and animals, to supply in lavish profusion the havoc which death is continually making," &c. * * * *

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"In addition to this power of propagation, organized bodies enjoy one of conservation and reproduction. Solutions of continuity, the loss of particular textures, whether resulting from injury or from disease, can be repaired. Parts that have been removed may be restored by a process of growth in the plant or animal; and in some animals the reproductive power is so energetic, that if an individual be divided, each segment will become a perfect being. This power of reproduction is greater the more simple the structure of the organized body; the more similar to each other are the constituent parts, the more easy will reproduction be. Numerous examples of this power may be adduced; the healing of wounds, the adhesion of divided parts, are familiar to every one," &c.

I have now given a sufficient number of citations to shew, first, from whence this Lecture "On the Organization of Living Beings" is principally derived; and, secondly, the kind of originality which is peculiar in this case to Mr. Ferguson as an author. That he has pilfered from the works of Todd and Bowman, and Dr. Carpenter, is so *very* evident, that it cannot for a moment be a matter of the least dispute. Had Mr. Ferguson possessed the honesty to acknowledge from whom he obtained the substance of his "Lecture," I, for one, should not have taken the least notice; but when an individual appears before the public SOMEWHAT IN THE CAPACITY OF A TEACHER, and, by his apparent or assumed superiority of language and profundity of thought, claims in an indirect manner our assent to his intellectual pre-eminence, it is but right, previous to our yielding such assent, that we investigate his claims, and, if we find them based upon a good foundation, then yield him his proper due; but if, after such investigation, we find that this superior language and profundity of thought are the produce of other minds, from whom it has been PILFERED, we ought, in common courtesy to those who are so pilfered, to expose the insolent assumption of these empty-headed pretenders, and place them on that level which nature from the first intended they should occupy. I trust, then, that Mr. Ferguson, before he publishes another "Lecture," or presumes in any way to instruct the public, will not only consider the works of others "may be consulted with advantage," but that, sooner or later, that public will discover HIS merits, and reward him accordingly.

REMARKS IN REFERENCE TO THOSE MADE BY MR. GAVIN ON SEDATIVES AND TOXICATIVES.

By T. T. DAVIES, *Llanrwst.*

FROM Mr. Gavin's remarks on the use of sedatives and toxicatives in tetanus, he seems to infer that stimulants are beneficial in tetanus: their primary effect I should suppose could not be so; their ultimate effect doubtless is. It is generally admitted that the primary effect of opium is stimulant, and that its ultimate effect as a sedative is owing to the depression consequent upon the cessation of its primary effect. Analogous to this, is the primary and ultimate effect of alcohol. I infer that the

successful treatment of the case depended upon the specific effect of tobacco as a sedative, and that it, or some of its class, as hellebore, antimony, &c., are far preferable as sedatives to opium in all diseases accompanied by increased vascular action, inasmuch as they do not increase such action at all, but, contrariwise, decrease it.

I remember being called in to a case of delirium tremens in the human subject. The patient had taken immense doses of morphine without any beneficial result. I immediately administered one-grain doses of ant. pot. tart. every three hours. No sooner had the antimony produced its nauseating effect, than the cessation of the nervous irritability, calm sleep, and consequently recovery, was the result. Is not delirium tremens akin to tetanus? Antimony I believe possesses no nauseating effect upon the horse: hellebore and tobacco do so to a remarkable degree. But I must leave the subject to future observers. I should be glad to see some further remarks upon the subject, as I always consider that a determinate and clear idea of the *modus operandi* of remedies is highly necessary to a successful practice of medicine. What I aver as a fact, and what I infer from the case alluded to, is, that hellebore, tobacco, &c., do, at once and primarily, what opium does only ultimately, and not so effectually; that hellebore is a depressant sedative, and that opium is a stimulant sedative; and that, consequently, hellebore is preferable to opium where it is desirable to reduce or quiet vascular action.

THE APPRENTICESHIP CLAUSE CONSIDERED.

To the Editors of "The Veterinarian."

By H. W. Hooper, *M.R.C.V.S., Birmingham.*

It is with regret that I learn, from perusing your much esteemed Journal, that attempts are still being made to overthrow the Charter so recently obtained from Her Majesty's government, and so highly approved of by the main body of the profession, especially the chief clause contained therein; indeed, a more important one than it I consider could not exist. Those who may peruse these lines thus far no doubt are aware that I allude to the *apprenticeship clause* in the by-laws, which I believe is worded in some such style as the following:—"After the 1st January, 1845, no person shall be permitted to present himself before the Board of Examiners who has not served a term of three years to some gra-

duated member of the Royal College of Veterinary Surgeons, in regular practice, during the whole of the time, prior to his entering the College." Not having at present a copy of the by-laws by me, I have endeavoured by the aid of my memory, to couch the above in a similar tone to that which is implied or expressed in the apprenticeship clause, and shall consequently, to the best of my ability, briefly consider this important subject, which, constituting as it does part of the Charter, ought, from circumstances that have occurred (its obtainment), be enforced as the law of the land.

It cannot for a moment be denied that it must be to every young man's advantage that he should be apprenticed prior to his entering the College, in order that he may lay a proper foundation for future improvement. With whom then, perhaps, I may be asked the question, should that apprenticeship be served? Shall I even hint to the empiric or farrier? Certainly not. I fancy I hear my professional brethren justly answering,—"Let him be placed with the man of science, who foretells every change his patient is likely to undergo—is able to account for such changes—and will not undertake a case for treatment in an obscure way, thereby preventing risking not only his own, but also the reputation of the profession of which he is a member."

The time specified for the young man to be apprenticed is not at all of long duration, compared with that named in the indenture usually drawn up for the pupil and master in the medical profession*; but will enable him, if only possessing moderate talents, with perseverance, to acquire sufficient practical knowledge before he pursues his studies at the College.

Now, since such a clause as this does exist in the Charter, I cannot refrain from cautioning young men who have not previously been apprenticed in conformity with the Charter, against entering, or, in other words, against paying the admission fees as students at either of the Veterinary Colleges, until they have become fully conscious of the benefit conferred on the profession by the granting of the Charter, and by the clauses contained in the by-laws respecting them.

Some of my readers may perhaps wish to be informed who these illustrious personages are that are doing their utmost to have this clause erased (as well as many others of minor importance) from the Charter; but if they will subject their brains to a little thought, they will instantly imagine that they are those who are particularly interested in the number of students admitted annually at either of the Colleges. To which I can only reply in the affirmative; for the *illustrious few* having that desire are now merely

* Not, however, now required from the candidate for examination by the College of Surgeons.—Ed. Vet.

those who are engaged within the walls of the Colleges, enjoying lucrative salaries, and whose sphere is bounded; but those who move in an unbounded sphere, as my brother Vets., intend, I firmly believe, maintaining the apprenticeship clause (of all others) in its strictest integrity; as, by so doing, I am of opinion we can rank ourselves as members of a useful and learned profess ion.

Recently I have heard it stated that the Professors consider they have succeeded in obtaining the erasure of this clause. I feel, however, disinclined to believe it; being fully persuaded that the Council cannot hold it just to sacrifice the interests of hundreds to benefit only, in comparison, a *very* few individuals, among whom, perhaps, are one or two members of the Council whose interest it is to be opposed to it. All others are especially in favour of the unaltered state of the Charter; and I think it behoves the profession to thank the more reasonable members of the Council for their endeavours in maintaining the Charter inviolate. And now, feeling I have done but imperfect justice to this subject, I will for the present leave it for abler heads to comment further upon its merits.

A CASE OF ASCITES IN THE HORSE.

By JOSEPH WOODGER, *Market-street, Paddington.*

THE subject was an aged grey gelding, belonging to Mr. R. Carpenter, coach-builder and omnibus proprietor, Paddington. On the 8th of the present month, I was sent for to attend him. On my arriving I found him down, unable to get up. He had been in that position for some hours. His abdomen was enormously distended. I was informed that he had appeared dull and inactive for a month previously, but had fed well, although gradually losing flesh; and had worked to within three days of his death. Considering his age and debilitated condition, I advised the owner to have him destroyed.

Post-mortem.—The abdominal muscles very much attenuated. The intestines literally swimming in fluid, of a pale straw colour, to the amount of four stable pailfuls, which is about sixteen gallons. The peritoneum lining the abdomen presented chronic disease. The liver was twice its natural size, and extremely condensed, it being impossible to pierce it in any part with the fingers; its peritoneal coat considerably thickened, and covered on its entire surface with miliary tubercles. The spleen was much enlarged, and firm in its texture; its peritoneal coat presenting the same appearance as that of the liver. On placing portions of the sub-

stances of the liver and spleen beneath a powerful microscope, their appearance presented nothing beyond extreme condensation. The kidneys healthy. The heart thinner in its walls, and much softened. The left lobe of the lungs presented an appearance of chronic pleurisy; the right lobe was healthy.

Believing the disease of ascites in the horse to be very rare, I forward the above case to the readers of your valuable periodical, having myself been in practice upwards of twenty-two years, and never before meeting with a case.

DISEASE OF THE FETLOCK JOINT OF A HORSE.

By JAMES BROAD, *M.R.C.V.S., Assistant to Mr. J. Woodger, 14, Market-street, Paddington.*

ON the 11th of August last, a heavy aged cart-horse, belonging to Mr. Rutty, coal and timber merchant, Paddington Wharf, fell suddenly lame in the near fore leg, immediately after turning short round with a cart heavily laden. The same day, my attention was directed to him. As a necessary precaution, I had the shoe removed, and examined the foot, without detecting the least cause of lameness. But, in passing the hand down the posterior part of the limb, there was great pain evinced on pressing the flexor tendons and suspensory ligament about the vicinity of the sesamoids, and extending upwards. The character of the lameness was of that description usually called *strain*, or *sprain*, of the suspensory ligament: in fact, such was, according to my impression, the nature of the disease; though, hereafter, the case will prove to have been of a different description, notwithstanding it was attended by a similar chain of symptoms to that of strain of the suspensory ligament.

Treatment.—Placed a light old shoe on the foot, removed the horse into a loose box, and ordered him to be prepared for physic, and repeated warm fomentations to be applied to the limb.

13*th.*—Purging freely, but as lame as ever: he could scarcely, indeed, bear any weight upon the limb.

15*th.*—Physic set. Not much improved. Bled him in the toe to the amount of eight quarts. Continue warm fomentations.

16*th.*—Apply cooling lotion to the limb, and wet bandages with cold water.

18*th.*—Slight improvement. Continue the same treatment.

24*th.*—Still very lame. Apply a blister from the coronet to within two inches of the knee joint.

Sept. 3*d*.—Not the least sign of improvement during the last week. The owner feeling desirous that he should be turned out to grass to take his chance, he was accordingly turned out.

29*th*.—Still as lame as ever. Mr. Woodger's opinion was sought respecting him. He informed the owner, that, in all probability, he would ever remain a lame horse. On hearing this, the proprietor resolved upon having him destroyed.

I had the lame leg removed at the knee joint, and carefully dissected it. On removing the common integument and some of the cellular membrane from off the side of the fetlock joint, I perceived a hole, large enough to admit a pea, having a sinus or communication through the limb, between the sesamoids and flexor tendons; through which I could readily pass a silver probe to the integument on the other side of the joint. The synovial membrane covering the sesamoids was highly inflamed. The whole of the synovial membrane between the flexor tendons, where the perforatus forms the sheath for the perforans, at the back of the fetlock, was intensely inflamed, and four times its natural thickness. In places, between the tendons, lymph was thrown out, whereby they had become firmly united together, which would have destroyed their action of gliding and moving upon each other. Posterior and inferior to the sesamoids, there was an abnormal bursal sac formed, containing a considerable quantity of a dark-coloured fluid, which was probably secreted by the diseased membrane. The disease had involved, to a lesser or greater degree, the whole of the synovial membrane belonging to the fetlock joint.

To prove that the suspensory ligament was not injured, I carefully examined it, and cut into it in several parts, and found it to present the same healthy appearance it would had it been taken from a horse that was not lame. In regard to the flexor tendons being not injured, I selected different parts of the diseased membrane, even the most diseased parts of it; and, having carefully dissected it off the tendons, they presented, everywhere, their natural white, glistening, healthy appearance. In cutting into their substance the same normal aspect prevailed.

I have taken the liberty of forwarding the above for insertion in your valuable Journal, as, having been a constant reader of the same for many years past, I do not remember reading a similar case, and am consequently led to consider it somewhat singular.

RUPTURED UTERUS IN A PARTURIENT COW.

By W. Cox, *M.R.C.V.S., Ashbourn, Derbyshire.*

I HAVE looked over the indices to all the volumes of THE VETERINARIAN, and I find but one case, which is in the seventh vol. of THE VETERINARIAN, by Mr. King, V.S., Stanmore, at all analogous to the one I am about to describe.

On the 20th of September last, Mr. Swindel, of the Crakelow farm, near Tissington, sent for me to a cow, which I found had been ill four days.

The character of the pulse was such that told me speedy dissolution was at hand: a peculiar heavy groaning, particularly when down—a tympanitic state of the rumen, abdomen, &c.—the fæces were liquid, black and offensive, and voided with tenesmus—cold mouth, with rigors—mucous membranes pallid—urine healthy—respiration but little increased.

The post-mortem account is from Mr. Swindel and the butcher who opened her.

On opening the abdomen, the calf was found among the intestines. The walls of the uterus having given way, the fœtus had escaped from its natural cavity, thereby producing inflammation of the peritoneum and intestines, and, as the consequence, death.

In Mr. King's case, to which your readers may refer, that gentleman appears to think that the rent in the uterus took place from the fœtus being swelled and puffed up, &c., which was not the fact with the one above described. She was within five weeks of her time of calving. The fœtus was healthy, and to all appearance continued alive up to the time of the accident. What could be the cause of this extensive lesion? She was free from any external marks of violence, and the history of the case gave us no clue as to the cause.

I recollect a similar accident occurring in a mare, some years ago: she had been using extra exertion in drawing a load of timber, and was within about a month of foaling; when she died, in the course of twelve hours, from internal hemorrhage.

OBSERVATIONS ON THE DISEASES OF PIGS.

By J. STORRY, *Pickering.*

IN the course of my practice for upwards of a quarter of a century, I have had to attend numerous cases of varied disorders in pigs; and I am happy to be able to say, I have generally been so successful in prescribing medicine and other treatment, that I have performed several astonishing cures, and therefore have given great satisfaction to my employers. Now, as THE VETERINARIAN is a work published expressly for the purpose of extending a knowledge of the various simple and complex disorders incident to horses, horned cattle, sheep, &c., as well as for publishing the valuable strictures and experimental and practical remarks of the editors, and the numerous important communications from practitioners in various parts of this and other countries, I have frequently been surprised that no notice has been taken of the diseases and distempers to which pigs are liable. In the absence, therefore, of a more able pen on this subject, I beg to offer for your consideration a few cases, out of a great number, that have come under my notice, and been put under my care, with the symptoms, treatment, and cure of the same.

The first case I shall record, happened several years ago. It was a fatal distemper among the pigs of Mr. Marshall, of East Newton, in the neighbourhood of Helmsley. He had about thirty pigs, some three, some four months old, all with the distemper, of which several had died before I was applied to.

Symptoms.—A husky cough, disturbed respiration, heaving in the flank, and foaming at the mouth.

Treatment.—Bled every pig, and gave cathartic and sedative medicines, consisting principally of sulph. magnes. with ol. ricini, veratrum, pulv. nit., &c. Every pig recovered.

The case I have selected, of more recent date, is that of a sow which belonged to Mr. Matthew Beale, of Middleton, near Pickering. She had littered eleven young ones, and had dropped in milk fever. I applied ligatures to one of her ears, and opened some of the aural veins, and thereby got a sufficient quantity of blood. I then gave her sulph. mag. ℥iv, with ol. ricini ℥iss. The next day she was a little better, and took some food. Medicine operated slowly. Gave cathartic enemata, and renewed the former dose. The third day she was much better, and from thence improved daily to a complete recovery, and brought up the whole litter with no loss.

The third case happened on the 4th July last. A sow of Mr. John Hayes, of Pickering, had littered thirteen pigs, and was lain on her side in a torpid state, taking no notice of her young ones, and refusing all food. She was a valuable sow, of a large breed, about two years old.

Treatment.—Gave her sulph. mag. ℥iv, ol. ricini ℥ij, tinct. aloë. com. ℥i. It will be proper here to remark, that a butcher in this town professes to cure pigs of every disorder by taking the "haws" out of their eyes. When I called the next day to see the sow, Mr. Hayes told me the butcher had been there, and taken the "haws" out of her eyes, and she was better.

The next day I was sent for by Mr. William Fletcher to see a pig of his that was very ill. The butcher, however, had been there a few days before me, and had performed his operation on two pigs, one of which was dead, and the other not likely to get better. On examination, I found it labouring under an attack of bronchitis, with symptoms also of pneumonia.

Medicine.—Digitalis, veratrum, of each ℈i, nit. pot. ℥ss, ol. ricini ℥i, M. The dose repeated four hours afterwards, leaving out the nit. pot., and adding opii ℈i. Better, next day. In a few days quite well.

A NEW FORMULA FOR THE EXHIBITION OF IODINE.

By JOHN RELPH, *Sebergham.*

FROM the well-known fact that iodide of potassium increases the solubility of iodine, I inferred that potash might have the same power; and, after many trials, have adopted the subjoined formula, the preparation of which is much less annoying to the operator than that of the spirituous tincture. It keeps quite as well, and is an efficient medicine. With me it has almost superseded the iodide of potassium.

℞ Iodine ℥j
Potassæ hydrat. ʒij
Aquæ ℥viij.

Dissolve the potash in ℥vi of water, add a portion of this to the iodine, and triturate; then decant, and repeat the process until all is dissolved. Rinse the mortar out with the residue of the water, and add to the solution.

I apprehend that this mixture of iodine and potash does not pass off by the kidneys with the same freedom that characterises the combination of iodine and potassium.

MR. CHERRY IN REPLY TO MESSRS. WATERS AND BARROWMAN*.

To the Editors of "The Veterinarian."

Gentlemen,

As you have done me the honour to place in my hands the letter of a Mr. Barwoman or Barrowman, I shall in my reply to that letter also include Mr. Waters, jun.'s epistle, which was inserted in the last number of your Journal.

The same remark applies to both, that they are personal rather than argumentative, though this is a point too peurile to notice but with a smile.

I stated simply the facts founded upon the strongest evidence, viz. *truth*. There is not a single statement in my letter which has given, it appears, so much offence, but had ample documents to support it: nay, more, I could have made it a very much stronger condemnatory statement, but I had no wish to hurt the feelings of any one; I only meant to state simple facts.

Mr. J. Osborne gives a simple statement in an official return just received, which I shall take the liberty of inserting without any comment. "Diploma not yet received *in consequence of Professor Dick neglecting to send some certificates, as stated by Mr. Gabriel.*"

I shall only now submit for the information of the veterinary body the expense incurred by the Council in calling a *special* meeting of the Board of Examiners; and leave those gentlemen to judge for themselves, whether the Council would or would not be justified in spending funds not their own, but placed under their charge for the purpose of general benefit, and not for the advantage of individuals; and particularly when those by whom the favour was sought were men who, with a single exception, had proved themselves unequal to obtain diplomas at the regular examinations at the proper periods; for, in the records of the Edinburgh examinations, it stands that *there are two* who have been THRICE rejected.

To add the name of one who had not before presented himself for examination is a mere subterfuge, as either the party was not qualified, or not prepared for the annual examination, which occurred so short a time before the application for a special examination.

I now give a debtor and creditor account of a special examination, simply premising that the fee for examination for Scotland is, and always has been, one guinea, which would be double for a special examination.

* The subject of this controversy is exhausted.—Ed. Vet.

Cr.				Dr.			
By half double fee for one pupil, half having been paid at the general examination	1	1	0	By fees to Board of Examiners, and incidental expenses	23	0	0
By double fee for one pupil not having been examined before	2	2	0	Deduct	3	3	0
	3	3	0	Loss to funds of R.C.V.S.	19	17	0

Mr. Barrowman states that no reason was given why the application was refused. One was however given, namely, *the increased expense*, and, moreover, the option was given to the applicants of being examined before the London Board of Examiners without *any extra fees*. So much for *exparte* statements.

Official documents exist to prove that my statements were the correct ones, and I cannot help thinking that official documents are worth more attention than interested personal statements.

I must say a few words for myself, and then close the controversy. I beg it distinctly to be understood that I am not the "champion" of the Council. I merely submit my own opinions based on my own views, which opinions I unhesitatingly give in my place at the Council, and which did I not do, I should consider myself unworthy to fill a post to which I have been, unsought for on my part, elected.

I have neither time nor inclination to enter into a controversy with those who only seek for a ground of dispute, but I hold myself as free as any other to make remarks on any subject which may appear to me to be requisite.

I am, Gentlemen,
Your obedient servant,
W. ARTHUR CHERRY,

Member of the Council of the Royal College of Veterinary Surgeons.

NOVELTIES IN SHOEING.

By a Practitioner.

I SEND you an account of two methods that have lately been devised,—the one to improve the mode of shoeing, the other a supposed superior means of preventing concussion. They may perhaps amuse your readers, for, alas! they have proved to be failures. They are also an illustration of the principle of "every

one to his trade," for both proposals emanated from non-professional men. I may also be allowed to make a few observations on a third novelty, namely, a shoe to prevent slipping, the ever-sought but not hitherto-perfectly-found desideratum.

I shall take them in the order in which they presented themselves to my notice.

About sixteen months since, two gentlemen, evidently not "horse *men*," called on me, seeking for information, which I gave them, as far as lay in my power: from their mysterious manner, I suspected that something new was on the tapis. A few days after they again called, and the object became manifest;—it certainly was a novel and ingenious plan, and in theory very plausible: it was no less than the making an entire revolution in the present system of affixing the shoe to the horse's foot. Instead of, as now, by nails, it was to be, as they fondly imagined, by SCREWS; but, in addition, every shoe was to have placed between it and the foot a rim or ring of Indian-rubber, which was then just prepared, and as yet hardly brought into notice. Several interviews took place, partly to gain information, and partly, it was evident, to draw into a copartnership: this was, however, quite out of the question; their ideas—for as yet they only existed as such—were, as soon as possible, to be registered, and brought into operation.

I took every pains to explain to the parties that a failure must be the inevitable result; for though it was perfectly true that to many feet shoes might with safety, nay with ease, be fixed with screws, yet there were obstacles which were insurmountable in the practically working it out. There was, first, to be considered the extra expense of making the shoes with proper countersunk holes to receive the screws, which could not be done without machinery; secondly, the greater expense of screws over nails; the having all the machinery for both these purposes, together with the requisite tools, got into a working condition; and lastly, and the most important of all, and which is the insurmountable obstacle, the removing the shoes when worn out, as, when the shoes are in this state, the heads of the screws would be so worn and battered, and the grit would have so worked into the small space between the head of the screw and the hole in which it must have sufficient space to be turned, that these would cause irregularities, and would act as so many dovetails to prevent the returning the screw out of its position, and the shoe could only be removed by force, and, as a matter of course, bringing with it the outer wall of the crust; but, like all men who have a hobby, the projectors could not be persuaded that they were only throwing away their money.

A few months passed, and I heard nothing of the parties, and

supposed that reason had resumed her sway; but, however, I was wrong, as, early in the present year, I received a visit from one of the parties, and he stated that the other had withdrawn; but that, being the principal projector, he had so good an opinion of the merits of his projection, that he now came to offer a half share of this very valuable affair. To carry on the farce, a letter was sent to him, asking for the proposed means of meeting the necessary outlay, and what might be the presumed advantages of a pecuniary nature to be expected,—in fact, only necessary business information. But to this a very lame reply was received; and, of course, a plain refusal followed to have any thing to do with the affair. But nothing could make the party give up his idea: for months he tried to persuade the writer into a better opinion of its very manifold advantages; and, at last, the affair was brought to a conclusion by asking whether, by the proposed plan, it was practicable to compete with the present price at which horses are shod, viz. at 3s. 6d. and 4s. per set? With a sigh he confessed that he did not see that they could; and he left, evidently exceedingly crestfallen.

I have been rather prolix in this account, because of the pertinacity with which an object totally impracticable was pursued; and as soon as an objection was started, the returning on another day with a statement that it could be overcome: but it always happened that a little inquiry proved the fallacy of the assertion.

It appeared, during the course of the negociation, that the projector was an "*architect*," and as plausible and pertinacious an individual as it was ever my lot to encounter.

Whether he has succeeded in gaining any party to undertake a share with him, I know not; but, as I have not heard of any thing of the sort, I suppose that it is for the present dormant. The last account I had of my friend the architect was, that he was concerned with the working of a patent cowl or chimney-pot to cure smokey chimnies; but whether they are as valuable as his proposed plan of shoeing, I have yet to learn.

The first I heard of the second novelty was in the foregoing projection; but several months elapsed before an opportunity offered of testing these Indian-rubber soles, and it then appeared that they were composed of caoutchouc and cork in very small pieces. A light thorough-bred mare was brought to me to be shod, with a request that the rims, which were brought with her, should be put on under the shoes of the fore feet: it was accordingly done. There was not much difficulty in their application, but they certainly were not so easy to be put on as leather. Either on the third or fourth day the mare was brought back to have the shoes removed, and the remains of the "*patent rims*" taken off. Dur-

ing this short time they were almost decomposed, the crust at the heels had cut through them, portions were entirely gone, and the whole of what remained were brittle, black, nay, in places quite friable. This is no more than might have been expected, for the action of the urine, and the pressure combined, were certain to produce such an effect. I should state, that the thickness of these rims was that of good stout sole-leather. This was a failure of No. 2 novelty.

Number three novelty had a more promising appearance:—

This was a shoe to prevent slipping, formed of malleable cast iron, and consisting of a plate of metal three-sixteenths of an inch in thickness, in the shape of a horseshoe, with a wide cover; at each heel, and at the toe there were cast on the plate two stout eminences, of about half an inch in height, situate across the web from without to within; those at the heel being about three quarters of an inch apart, the one at the toe about an inch or rather more; these were made dovetailed, so that the corresponding wedge-piece could only be put in sideways, and, when there, these wedges were kept *in situ* by a small square wedge of wrought iron, and long enough when driven through, to be turned in the nature of a coarse clinch on the side of the opposite eminence. The shoe had ten holes in the plate, two of them being under the toe wedge; the plate was to be applied to the foot before the wedges were fixed in their places. The object of these contrivances was to be able to renew the wedges as often as requisite, without having to remove the plate to which they were attached, so that the foot might not be broken.

The horse stood consequently on three points, and raised about an inch and a quarter or a little more from the ground, very similar to the snow-shoe in use in the north of Europe; but with this difference, that the base in the latter is increased, in the former it is diminished.

The shoes were put on by a good workman in my employ on the Saturday afternoon, consequently did not work in them on that or the next day, Sunday. On the following Wednesday the horse was brought back to have other shoes put on, in the place of what remained of the patent ones: these were worn out and broken, one entirely lost—the heel of one with the wedge and its side-holders broken off; the toe piece of another worn down, together with the side holders, and the wrought iron cross wedge; the others worn down so as to completely defeat their object, and the plates which represented the shoe in all of them bent, twisted, and contorted in a way that hardly seemed possible for it to be done while on the foot: but such was the fact. This evidently arose from the plate not being of sufficient substance to bear the leverage and unequal

pressure of the cocked-up wedges. So that novelty number three proved a failure after only *three days'* wear.

I have since seen a few other specimens of this shoe which had been applied by others; but, as far as I could learn, the result was as nearly as possible the same.

In this case the projector was also a non-professional schemer.

I have thus given a cursory history of three plans devised for the improvement of the shoeing of horses, but all, to my own certain knowledge, have proved failures. In two out of three it was attempted to draw me in as a participant; and the best plan I considered to shew the impracticability of the projections, in their then state, was to let the parties see for themselves that such was the fact.

Oct. 1846.

A CASE OF ACUTE CORONITIS.

By W. Arthur Cherry, *V.S.*

June 30*th*, 1846.—I was requested to see a grey gelding, working in an omnibus, that had been lame of the off fore limb three days. The shoe had been removed, and no cause for lameness could be detected in the foot. I found the fetlock a good deal tumefied, and a wet bandage applied around it. The horse was exceedingly lame, standing in great pain, with the foot pointed forward, and the joints of the limb flexed. Upon passing my hand down the front of the limb, I found, as soon as my hand touched the coronet, that the horse flinched very much. More careful examination shewed a tumefaction confined to the coronary body, extending to the centre of the quarters on each side: heat very considerable, extending over the tumid part, and over the upper third of the hoof, the lower portion and the sole being quite cool. The swollen fetlock was evidently referrible to the pain induced from the inflamed coronary body. I considered it to be a case of acute coronitis, and directed that the tender part should be rubbed daily with turpentine liniment, and a swab be constantly applied to the part, and kept wet with cold water.

July 2*d*.—Much better, and, though still lame, able to go to work; shod with a leather sole to mitigate concussion.

4*th*.—Still better; continue the treatment and keep at work.

8*th*.—Sound, but a slight tumefaction of the coronet still remaining. Fetlock quite fine, and has been so for some days.

11*th*.—All appearance of the disease had subsided.

Remarks.—This was a case of pure acute coronitis. The swollen fetlock was only the effect of irritation, though it was at first considered to be the cause of the lameness. It subsided without any treatment, so soon as the cause which produced it was removed. I have no doubt that the affection had been brought on from the very dry and hot weather, and consequent hardness of the roads and heat of the pavement. It is comparatively rare to find so well marked a case of acute coronitis, its most frequent form being the chronic state. It is also singular, that only the anterior part of the coronary body was affected to any extent, the posterior part being quite free. I have no doubt that this arose from the greater flexibility of these parts, mitigating the effects of the concussion.

UPON THE EFFICACY OF DEEP CAUTERY LESIONS

AS A THERAPEUTIC AGENT IN BONE-SPAVIN AND OTHER CHRONIC LAMENESSES OF HORSES.

By Mr. JAMES TURNER, *Regent-street.*

THE hock-joint is regarded by horsemen, professional and otherwise, as the wearing place of the hinder extremity: most cases of lameness of the hind leg of any duration are referrible to this large, complex, and important joint.

Very valuable contributions have lately appeared in THE VETERINARIAN, in a series of papers upon the subject of bone-spavin, from the able pen of my friend, Mr. Percivall. I, for one, have perused them with much instruction, and therefore most confidently embrace this opportunity of entreating the attention of the veterinary student to their minutest details.

I point especially to the student; because they comprise the anatomy, as well as the pathology and therapeutics concerning the hock-joint; but they will amply repay the most busy scientific practitioner for his valuable time in their perusal, if followed by grave reflection in addition.

There is much to praise in this work as a whole; but the July paper of this eminent veterinarian on the subject of spavin, touching its curability and treatment, I must confess has excited not only my surprise, but serious apprehensions for the reputation of the great body of operating surgeons throughout the united kingdom. Mr. Percivall is deservedly a great authority; and therefore any erroneous opinion which he may promulgate to the world will be

mischievous in proportion to the author's celebrity. I am the last to impugn this gentleman's motives, having the greatest veneration for the honesty of purpose with which he invariably wields his powerful pen; yet in the instances I am about to cite he appears to me to be *writing down* one of the greatest laurels or triumphs achieved by operative surgery, belonging exclusively to (because perfected by) the more matured skill and dexterity of the *last twenty years*, and especially to those veterinarians located in hunting districts.

The July paper commences thus: "Spavin is one of those diseases improvement in the treatment of which has not kept pace with our advances in the science of hippopathology." He then adds, "We have left, not merely unimproved upon but undisturbed, our ancestors' plans of treatment; nay, hold them at the present hour in all the estimation they were formerly held." In quoting the ancients, beginning with Solleysell: "Bone-spavin," says this father of veterinary medicine, "is a very dangerous distemper, and requires the most violent remedy; viz., the *fire;* and even this is oftentimes applied without success." Our author then quotes Gibson somewhat copiously, with whom he is much enamoured, and quite carried away, as the following passage proves: "I have made my extracts from Gibson so full and lengthy, that my readers might see how much, a century ago, had been accomplished in the way of treatment of spavin; and now that they have perused this excellent account, I can entertain no doubt of the professional part of them, at least, being of opinion with me, that the veterinarians of the present day have little to boast of in the way of innovation or discovery in this department of veterinary therapeutics."

Mr. P. then winds up the July paper with the following extraordinary version of the *modus operandi* of deep-firing: "I am very much inclined to the belief that the *success derived from deep-firing* and blistering is, in a measure, ascribable to the extremely sore and rigid condition of the skin produced thereby, rendering it for a considerable time, through the pain consequent on the act, next to impossible to flex the diseased joint."

The August paper, at the commencement, has this reiteration: "At the present day we are found practising blistering and firing, the same as was practised a hundred years ago by our professional predecessors."

Now, Mr. Editor, with this spavin bone there is lurking the bone of contention, which has aroused me from my lair. My pen is not taken up for vain-boasting or personal gratification, but simply and honestly to deny the foregoing allegations, and to claim a high position in science for the existing state of veterinary sur-

gery, especially for the highly scientific and efficient manner in which the actual cautery is exercised both in London and the provinces.

I perceive, by the last number of the VETERINARIAN, that this subject has already raised the manly voice and pen of that able provincial veterinarian, Mr. Tombs, which, I predict, will be echoed throughout the length and breadth of the land. Many general practitioners will feel nettled and mettled as well as myself. Numerous will be the queries and importunities to Mr. P. regarding his singular retrograding view of one of the most important divisions of veterinary surgery, at no period of its history more in request by the public than at the present moment. Among them I have a new problem in therapeutics for my old respected colleague to solve, and must premise by confessing that both my brother and self have, at length, become hoary practitioners in the art and mystery of *deep-firing*, in association with several others in various parts of the kingdom. In their names, as well as my own, I ask Mr. Percivall for his rationale of the following astounding fact, which is no less strange than true. Either of us shall have operated upon a properly-selected case of bone spavin, accompanied with lameness. Having carried the cautery lesions to the requisite extent, both as to depth and length, regardless of blemish, *immediately* upon the removal of the hobbles the horse gets up and *trots off free from lameness*, presenting almost a parallel as regards the transition from lameness to soundness to the operation of unnerving for navicular joint disease.

The *continued repose of the hock joint*, in which Mr. P. has so much faith, could not have contributed any thing in effecting this salutary change.

Having been honoured, in the course of the last ten years, by numerous letters addressed to us from country practitioners, laudatory of the deep cautery lesions, besides two or three which were addressed publicly and in due order have appeared in print, I feel no hesitation in making the following extracts from my own writing, published in THE VETERINARIAN about sixteen years ago:—

"Viewing the other method (the superficial), my practice in firing of horses has convinced me, that the *success* of the operation, *if performed for the removal of lameness*, where the ordinary means have failed, whether situate in a joint or a sinew, depends solely on making each separate line or incision, from end to end, completely *through the skin* or common integuments, *cutis* as well as cuticle, and boldly exposing the cellular tissue, forming the immediate covering of ligaments, tendons, periosteum, &c.; with all due caution, of course, not to pass the instrument so near as to wound or sear these important structures." This applies to spavins, ringbones, &c.

"A tumour on the inner or the outer ancle, contiguous to either of the sesamoid bones, is a very frequent cause of lameness, the pulley-like joint formed by the sesamoid bones being more or less involved: this enlargement or bulge is to be met with rather more frequently on the *inside* of the fetlock-joint very near to the *cutting place*, but distinguishable from the effects of striking, in an instant, by the experienced eye: it is a diffused swelling, consisting of a condensation of cellular tissue and lymph effused under the skin, while the integuments preserve their original or natural thinness; but there is usually an accompaniment which completely stamps the character of the enlargement, viz., a slight projection or thickening of the inner or outer branch of the *suspensory ligament*, as may happen to be the affected side, just below the bifurcation; the other parts of the leg may be sound and clean, and the patient tolerably free from lameness whilst at rest, but when put to ordinary work lameness ensues immediately. I need scarcely add, that this consolidation of parts originates, in nine cases out of ten, in a sprain of the elastic suspensory ligament. Sometimes *both* sides of the joint are similarly affected.

"*Enlargement of the Fetlock-Joint on the Inside of the Fore Leg.*

"*Lesion the* 1*st.*—A longitudinal incision with the *red-hot iron*, down the centre of the tumour, as if intending to make a section of it: this single line comprises about half the cure, and therefore it must be boldly done. Merely penetrating the skin from top to bottom will not suffice, unless by its retraction a considerable furrow is immediately produced of a certain size, generally about the width of a large straw: to effect this, it may be necessary also to penetrate a part of the *cellular tissue*.

"*Lesion the* 2*d.*—A longitudinal incision with the same instrument down the posterior part of the fetlock-joint, in a line with the back tendon or flexor, completely through the skin, but without any additional effort to dilate the furrow; the penetration of the skin only at this part will instantly expose the cellular membrane, forming the immediate covering to the sheath of the tendon.

"*Lesion the* 3*d.*—A corresponding incision down the front of the joint, with the same caution, to penetrate the skin only. The *transverse* incisions between the three longitudinal will complete the operation: these must be performed with a differently-shaped instrument, much smaller, but yet a red-hot iron, which should also *penetrate* the skin, and will require great dexterity on the part of the operator, as it is expedient that the lesion of the skin should be effected with the least possible dilatation of the line. On this part of the undertaking depends the proportion of *blemish*,

but when dexterously performed, it contributes much to the *neatness* of the fired leg.

"I have, however, on some occasions, dispensed with this division of the operation, and depended solely on the three or four longitudinal incisions, carried to the utmost depth that my experience would sanction, which have proved successful."

It is a fact—a startling fact—arising from the deep-firing operation in the cure of ring-bone, spavin, or osseous tumours generally, or ligamentous thickenings, that the moment the tumour is penetrated to a certain depth, the lameness vanishes, and the patient becomes, in a manner, a sound horse.

In a long and interesting debate before the Veterinary Medical Association, arising out of the memorable Essay of Mr. Mayer, jun. on the Comparative Merits of the Actual Cautery and Setons, I ventured to give the following

"*Summary of the Operation of 'Firing' upon the Legs of Horses.*

"That veterinarian, with the firing-iron in his hand, who combines, in his own person, the requisite amount of skill, anatomical, physiological, and pathological, with the utmost daring, may wield that instrument with such unerring precision as to perform cures next to miracles; in short, by curing the incurables of the schools, may raise for himself a fame, and legitimately too, tantamount to such a distinction.

"How? is the question.

"The whys and the wherefores are numerous and obvious:—1st. Relief from tension by mechanical lesion—and the abatement of pain instantaneous. 2d. Copious local blood-letting from the actual seat of chronic inflammation, but perfectly at the controul of the operator. 3d. A counter-irritant second to nothing, as yet practised. 4th. A depletant, as insuring suppuration in quantity and continuance without a parallel by any other artificial process, not excepting *setoning*. 5th. As a rouser to the absorbents, it sweeps all before it. All adventitious deposits vanish; but the results are, a permanent condensation of the integument most tenaciously adhering to the weak sinew or joint. 6thly, and lastly. Such a compress, 'encompassing the weak part—such a bracer,' in short, the sportsman's true friend, indeed, because it is his friend in need;—and in the perils of the chace, in awful drop-jumps, for instance, times and oft has the sixteen-stone rider been inspired with confidence, and gratitude to his bold operator for having engraven these lesions upon his incomparable hunter's weak ancle."

"My friend Percivall has, unfortunately, declared to the world that the present state of veterinary surgery, as applied to bone-

spavin, is identical and only on a par with the prevailing practice of expert farriers a hundred years ago. If they did *penetrate* the skin with the cautery and lay *bare* the morbid structures upon joints *successfully, where* are to be found their instructions in print? I look in vain through his pet author, Gibson. There is no Old Parr living to shew us what they did. I do not doubt for a moment but they occasionally fired deeply, and *often too deeply;* but I defy him to produce any specific directions, or any data, scientific or otherwise, as to the requisite curative depth, or the critical point when to *stop* the instrument. There is comprised in this much *pure surgery,* and, as an old hand, I am competent to declare, that it is to this day so much in requisition as to constitute a third of the practice of the busy general practitioner.

I hope this distinguished writer will forgive me for my boldness in presuming to account for the manner in which he has fallen into this error. I believe that Mr. P.'s experience of spavin has been as great as any man living, considering his opportunities of observation, and they have been numerous; but his range has been circumscribed: he has never been a *general practitioner;* there are diversified forms of spavin to which he has never alluded, and permanent cures of chronic spavin by the *deep lesions* are effected daily, both in town and country, by the scientific and experienced hand of those who have energetically adopted the *bold method.*

I cannot refrain from observing also, that there exists a strictly *ligamentous* disease of the hock-joint, which is so rife that it is a *precursor* to bone-spavin in the proportion of about two cases out of every three. Upon this important division of the pathology of the hock our author has not favoured us with one line.

In perusing his *Anatomy* of the hock, I am sorry to add, that I encountered another disappointment. Considering we have been emancipated from farriery upwards of half a century, I expected the pleasing and instructive perusal of the *minute* anatomy of the very many pairs of ligaments which enter the composition of the numerous *small* joints, independent of the master joint of the hock.

I am also greatly at issue with my friend concerning a paragraph at page 123 of the March number of this Journal; viz. "Such a phenomenon as a spavin on the *outer* side of the hock is all but unheard of. I am not saying it never occurs; nor, indeed, am I quite sure it would be called a spavin if it did." Although here again I differ with the writer, I should certainly have passed this over in silence, but that I am in the habit of urging students to avail themselves of all Mr. Percivall's works, and am fearful this sentence alluded to might greatly mislead them. My experience has for many a year convinced me that bone-spavin on

the outer side of the hock is a disease of very frequent occurrence, and often a source of lameness without any corresponding disease of the inner side of the same hock; and further, by acting promptly on this knowledge, I have occasionally enjoyed the triumph of effecting *cures* by a bold exercise of the cautery on the *outer* side of the hock, *after* the inner side had been *fired* without the slightest benefit. Examples of this have especially occurred in my brother's operations among hunters, the ligaments *outside* the hock-joint in connexion with the cuboid and metatarsal bones being very susceptible of injury in violent and cramp jumps under hard riders and heavy weights.

[To be continued.]

THE VETERINARIAN, NOVEMBER 1, 1846.

Ne quid falsi dicere audeat, ne quid veri non audeat.—CICERO.

To the end that the arts and sciences may progressively advance, it becomes not only necessary that the actual professors and practitioners of them should severally exert themselves in their cultivation and improvement, but that especial care should be taken that the rising generation—the young men who in due time are to step into the shoes of the present professors and practitioners—should at their entry into professional life have received that higher degree of qualification which fits them for commencing their career at somewhere about the advanced stage of knowledge at which their predecessors left off practice, or at least improvement. Were half-a-dozen explorers of some unknown country all to commence their travels in succession from the same spot, they could not effect the same advances as they would have done had each traveller set out from the point at which his predecessor had closed his researches.

Those who framed the first code of rules and regulations for the Veterinary College, fearing lest they might deter persons from becoming candidates for a profession in those days any thing but popular among gentlefolks, restricted the qualification for admis-

sion to college simply to ability to *read and write;* and so, down to the very time we are writing, has stood the test for entrance into the veterinary profession. It is true, such a standard of qualification has since been found so wofully low, that, of late years perhaps, it has been in effect next to a dead letter. Rarely, we should hope, in our time has it been requisite to call the qualification into question. We do remember, to be sure, having had sent us—as extracts from the note-book of a veterinary pupil—"Viteels it gets micks suliver parses over the base of the tongue into the pharicks thats contracts into ophesophicks into the stomach:" this, however, betrays more a want of knowledge of the Latin than of the English language, a remark that brings into our mind rather an amusing colloquy at which we happened to be present, between our late Professor (Coleman) and a college pupil from Yorkshire.

SCENE.—*An apartment in the Professor's house.*
Enter Yorkshire pupil; the Professor sitting at table with some friends.

Yorkshire pupil (habited in velveteen jacket, corduroy small-clothes, and laced boots).—Beg pardon, zir! but had rather go back home.

Professor.—Go home, my good fellow!—Why?

Yorkshire pupil.—'Cause as how, zir, I do'a'nt know *Lottin.*

Professor (laughing.)—Know *Latin,* my good fellow!—You know Latin enough.

Yorkshire pupil.—I had rather go home, zir; and be come to ax yer if yer'd gi' me back hafe my money?

Prof.—Well, my good fellow! if you have made your mind up to go home, I suppose you must go. (Half the admission fee, we believe, was returned).

The very constitution of the by-laws of the Royal College of Veterinary Surgeons clearly demonstrates, that the chief object held in view by those who framed them was to improve the condition of the candidate for membership. They (the by-laws) seek to raise the standard of qualification in two ways: they demand a better instructed candidate for examination, and they make the test of examination more searching and satisfactory. In furtherance

of the first object, comes the by-law enacting that "no person shall be admitted as a member of the Royal College of Veterinary Surgeons, after 1st January, 1848, who has not served an apprenticeship of three years to some member of the College in regular practice during the whole of that period*." And this by-law it is which has, as indeed might have been expected, given so much offence to the veterinary schools, not only because it has upset any and every qualificatory test they might have imposed upon or been content to receive from the candidate; but because it has thrown difficulties in the way, which never existed before, of obtaining pupils. It has, therefore, been the object of the schools to get rid of this obnoxious by-law; and so we find, as one of the clauses to be introduced into our Charter as proposed to be altered by the Governors of the Veterinary College, that "NO apprenticeship shall be necessary previous to the examination or admission of a candidate" for membership.

Now, that the standard of qualification for examination or membership, such as it was heretofore, *did* require heightening—that there were too many instances of young men obtaining diplomas certifying that they were "duly qualified to practise the veterinary art," who turned out any thing but creditable practitioners, we opine will neither be doubted nor disputed: the question, therefore, the Council—in framing the by-laws—had to consider was, since it was obvious the standard of qualification required raising, how or in what manner this could, with most advantage to the rising members of the profession, be carried into effect.

For our own part, we must confess we have a sort of antiquated feeling of respect about us for all *old customs*, and that reverential feeling seems much enhanced when the old custom has descended from our forefathers down to our very selves. It is true, apprenticeship has lost somewhat of its universality; for in Charles the First's time, we are informed by Sir Kenelm Digby, so inexclusive was the practice, that "many rushed into the *ministry* as being the only calling that they could profess *without serving an apprenticeship*." Still, apprenticeship in our day is general enough to shew that no mean advantages are derivable from it. The boy

* Sec. ii, No. 2, of the by-laws.

from school, now, as of yore, goes " 'prenticed " to the trade he is to follow. Apprenticehood is the stepping-stone from one to the other. As an apprentice, the boy learns the drudgery—the dirty work—of his future calling; qualifying himself, slowly but surely, for the situation of master or director of the concern. How numerous are the minor but indispensably useful matters the surgeon's or veterinary surgeon's apprentice learns while with his master, which are—seemingly on account of their very littleness —taken no cognizance of by the schools or hospitals! Added to which, he cultivates an acquaintance with disease, wearing the very aspect in which he will have to behold it and prescribe for it when he himself comes to practise. Still another advantage presents itself to the veterinary apprentice, and that is, the time and leisure he will have afforded him to learn his duties at the forge.

The late Professor (Coleman) was known to say, that " the sons of grooms and farriers made the best veterinary surgeons;" and though, unqualified as the assertion stood, it seemed at the time deserving of condemnation, yet has it struck me that by it the Professor meant no more than that such persons generally turned out the best *practitioners*—at least better than young men of education who had never been known, prior to their coming to College, to enter a forge or a stable in their lives. And in this point of view Coleman was right.

The grand object manifestly is, to amalgamate the two descriptions of knowledge—practice with theory, or theory with practice. Surgeons and veterinarians should be able to work with their hands as well as with their heads. And it has been with the laudable desire of accomplishing all this that the Council have come to the determination of making apprenticeship one of the conditions for examination and membership.

Since, however, apprenticeship is found to operate disadvantageously to the veterinary schools, and since the College of Surgeons—who until lately demanded an indentureship of five years —have abandoned it, it behoves us, we think, to re-consider the matter. It must be self-evident to every person at all conversant with their proceedings, that the Council of the Royal Col-

lege of Veterinary Surgeons have—have had from the very beginning—but a single object in view, and that is, the promotion of veterinary science and its professors. What they require of the pupil who presents himself before their Board for examination is, a certain amount of qualification; and if they have taken on themselves to prescribe the way in which he shall obtain this qualification, they have but done so to ensure its attainment. Supposing, therefore, that the schools so alter or amplify their curriculum of education that the Council become satisfied these objects are fulfilled, we apprehend that the apprenticeship clause would admit of modification; or that, in lieu of it, another might be framed, running to some such effect as follows:—That the candidate (for examination) shall bring satisfactory proof (in the form of certificate) of his having been engaged in the acquirement of professional knowledge for not less than THREE years, during two (sessional) of which he must have attended the lectures delivered at the Royal Veterinary College of London or at the Veterinary College of Edinburgh, or at such other school as may hereafter be sanctioned by the Charter. It being understood that one year out of the prescribed three (and that, advisedly, the *first* year) might (or *must*) be passed under the instruction of some member of the College in regular practice during that period.

Most gratifying letters continue to reach us in approbation of the policy and measures adopted in the present crisis by our hard-working Council. The least return their country *confrères* can make them is a little encouragement; and such letters as the one subjoined—kindly sent us per post by our excellent Secretary—contains the right sort of encouragement, and which is especially enhanced, coming, as it does, from a GOOD MAN AND TRUE!

* * * "I am much pleased with the gallant manner in which the Council continue to conduct the struggle in which they are at present engaged on behalf of the profession. I admire their unflinching firmness in adhering to the Charter. I would not have them give way one iota. Relying on their proved capacity, integrity, and untiring energy, and also on the goodness of their

cause, ' for thrice is he armed who hath his quarrel just,' I feel confident they will bring the contest to a triumphant and satisfactory termination.

" I hope my brother veterinarians will bestir themselves, and by every means in their power support the measures adopted by the Council. If they can do nothing else, I trust they will, at least, *cheer* on the Council in their noble course by the expression of their approbation and gratitude. If we are only *true to ourselves*, no minister or party, however powerful, will, I think, be able to dislodge us from the position in which we have been placed by our Charter, or prevent us, ultimately, from carrying out those legitimate and useful objects we have in view.

" As regards the College authorities at St. Pancras, I have always keenly felt that we have been by them treated as a proscribed body—the only class of her Majesty's subjects who have been denied the privilege of becoming subscribers to the College, lest we should thereby obtain a voice in its government; and that, while they greedily received our money for instructing us, we were obliged to accept the scanty, defective instruction they chose to dole out to us. Now that we have attained the position of men, let us act like men, and resist every attempt that may be made to bring us again under the blighting influence of those who have treated us with so much injustice and contumely.

" In conclusion, my earnest prayer is, that the Council will persevere in maintaining their present mild, but at the same time, firm, manly attitude, and fear not. ' May God defend the right!'

" I am, dear Sir,

" Your's faithfully,

" W. HOLIDAY.

" Luton, Bedfordshire,
13th Oct. 1846.

" —— *Gabriel, Esq.*"

REVIEW.

Quid sit pulchrum, quid turpe, quid utile, quid non.—Hor.

THE ECONOMY OF THE ANIMAL KINGDOM, *considered anatomically, physically, and philosophically. By* EMANUEL SWEDENBORG, late Member in the House of Nobles in the Royal Diet of Sweden; Assessor of the Royal Metallic College of Sweden, &c. &c. Translated from the Latin by the Rev. AUGUSTUS CLISSOLD, M.A. Vols. I & II. 8vo, pp. 574 and 426. London: Newbery, King-street, Holborn, 1846.

"IN the present volumes we introduce the English reader to the first of those great works in which the principles derived from anatomical and general experience are applied by Swedenborg to elicit the uses of the human body. The works of Swedenborg divide themselves into two classes, viz. a scientific class and a theological; and the scientific works—with which we are now engaged—are again divisible into practical and theoretical. Whatever may be the merits of the practical portion, it is not to come before us at present."

"The compound relation of the two fields of science and philosophy is a remarkable feature in these works; and the more so, as Swedenborg is the only writer in whose hands the matter of the sciences, and the way of induction, legitimately engender philosophical ideas. Other writers have proposed the same result, but he alone has attained it."—"For he has substantially connected the organic sciences with philosophy and morality: so that body and soul are no longer two, but one in their harmonies."—"We learn in the writings of Swedenborg, that doctrines cannot permanently elevate knowledge, unless they work with experience, are handled by genius, and are used with good intentions. For they tend in no degree to produce equality between human minds, but rather to manifest, in their operation, delicacies of intellectual distinction between different men, and finer points of moral dissimilarity."—"A KNOWLEDGE OF THE HUMAN SOUL IS THE AUTHOR'S AIM IN THE PRESENT VOLUMES."—"Whether Swedenborg was conscious from an early period of this direction of his labours is hard to determine; but it is certain that he rose from one study to another, in regular order, without proposing an ultimate end, until he proclaimed his resolution to investigate the soul. His theory of the mathematics and dynamics of chemistry

brought him in view of the elemental kingdom, the fluids of which are 'the grand forces of nature.'"

"As Swedenborg pursued the sciences for so high an end, or for the attainment of moral and rational philosophy, so in his hands they were means of a new order, and disclosed truths of corresponding elevation. Above all, the anatomy of the human body proved to be a mine of unexpected treasures. But, in order to comprehend the value of the present works, it will be necessary to dwell for a short time upon some considerations relating to anatomy."

"The science of anatomy has been held now for several centuries as an appanage of medicine, and to surgery, at all events, great gain has accrued from its cultivation. But the domains of surgery hardly extend to the interiors of the body, or beyond the locomotive and voluntary system, and a few well-marked regions of the surface; and certain gross but verified anatomical observations are sufficient for the practice of that important art. Medical anatomy is also limited; consisting rather of the common facts and regions of the science than of its more particular experience and deductions. We are here speaking of things as they are, or of the portion of anatomy required by the physician in the cure of diseases, and which actually ministers to that end. It is generally supposed that the diagnosis of disease and the art of healing involve an intimate, not to say indefinite, knowledge of the structure and functions of the body. The watchmaker, they tell us, who comprehends the works, can adjust the watch; and the physician who is acquainted with the anatomy of the body can cure its diseases. If this were the condition of healing, it would be too hard for man. But it is here as in all human dealings with nature and her organic mechanism. We have only to observe, dispose, and change the outward, to operate upon the general form; but the inward, the singular, the essence, lies beyond our faculty: nevertheless, the law is, that it shall be modified according to the efforts we make in that extreme sphere when our will is determined. And so it is in medicine. The human skin, with the complex phenomena and effects that reside in it, or result to it from the internal organs, is the field of knowledge indispensable for salutary practice. A perception of the ever-changing physiognomy of the whole frame constitutes the power of diagnosis. A certain regional anatomy, of course, is requisite, but of the broadest and most elementary description. We are not now considering what anatomy may contribute to the education of the physician's mind, but its direct ministrations to medical practice. And that the above statement is warranted, may be plain from the fact, that the best anatomists are frequently not the best practitioners, while,

on the other hand, the successful physician commonly has no pretensions to a minute knowledge of anatomy."

"The truth, then, is—that pure or unlimited anatomy does not belong to medicine: it is a mistake to regard it as a subordinate branch of hygiene; a mistake which oppresses medicine with a load of alien materials, and degrades universal anatomy to a state of unnatural subservience. The mariner is not *ex-officio* an astronomer, although astronomy is applied in navigation. The compass needs but its own observations of the starry heavens: therapeutics and dietetics require their own research into the human body. Beyond and above the anatomy which is applicable to these high arts, there is a vast field of knowledge, which belongs to no one calling, and lends itself to no single material use. The microscopist, who peers into the unfathomable azure of nature's purest field, is not the pioneer of medicine, but the minister of natural philosophy, standing beside a well of principles, of which the useful arts and sciences are but remote derivations. He appears to be connected with medicine at present, because medicine has probably born and bred him; because her children understand his terms, can apprehend his discoveries, and receive his instructions; moreover, because no other class has yet seen needful to open a communication with the vein of his knowledge. But this relation is not to be perpetual; even as the parental affection is not to continue when the child becomes a man. As chemistry once dwelt with medicine, so does anatomy now*. But chemistry has long since flown over the whole globe of the arts, and introduced herself to each; and in process of time anatomy will do the same—nor minister only to the arts, but to the deepest ideas and purposes of the mind—to the ordination of civil life, to philosophy and theology."

"It will probably be found that, in these respects, all the sciences are in nearly the same position as geometry. Thus we have pure and applied geometry; we may also have pure and applied anatomy. Any walk of nature, cultivated in the light of mere knowledge, is, in this sense, a pure science: when one or more aspects of such knowledge are turned to use, it constitutes an applied science, or an art; and no pure science can serve an art without receiving limits which do not belong to it *per*

* "Chemistry was long known only as it was serviceable to the physician, for the preparation of his purgatives and emetics. Whilst it was thus grafted on the medical sciences, it could obtain no independent position. But chemistry is capable of being made subservient to far higher offices: it may be employed as a means of cultivating the mind, of training the human faculties for the universal investigation of nature."—*Liebig's Familiar Letters on Chemistry*, 2d Series, p. 4-5. London, 1844.

se, or without abating somewhat of its theoretical totality and perfections; as the breadthless line and absolute circle of mathematics become a rugged surface and a series of angles in the best diagram or the finest mechanism. It is only to philosophy, considered as an art, and at the same time as a rational echo of the nature of things, that any pure or unlimited science can be applied and still retain its own form, and keep its truth uninjured."

"We are anxious to set this matter right; for otherwise the present works will fall to the province of the medical critics; whereas they require to be tried by their peers, or, at all events, to be canvassed in a truly philosophical spirit. No adjudication from medical powers will settle their value, or decide the various questions to which they give rise."

Such are passages collected, *passim*, from the "Introductory Remarks" of the editor of the present volumes, Mr. Wilkinson, the translator of Swedenborg's "Animal Kingdom." The work clearly does not "fall within *our* province of criticism:" it must be "tried by its peers." No "adjudication" of ours can "settle its value." For all this, however, we may be permitted to recommend it to the notice of such veterinarians as desire to extend their reading into the upper departments of physiology, and thence take a step up into the regions of psychology; assuring them, as they turn over its leaves, that they will find, in the course of these long winter evenings, ample material therein for philosophic reflection.

PROCEEDINGS OF THE COUNCIL OF THE ROYAL COLLEGE OF VETERINARY SURGEONS.

Sitting of September 30, 1846.

Present—the PRESIDENT, the SECRETARY, Messrs. MAYHEW, F. C. CHERRY, J. TURNER, WILKINSON, ERNES, and W. ARTHUR CHERRY.

THE minutes being read and confirmed, the Memorial Committee reported, that they had not been able to come to a decision upon a draft of a memorial laid before them by one of the members of the committee; that this did not arise from the nature of the contents of the draft—of that there was but one opinion—it was extremely good; but a difference of opinion arose respecting the arrangement generally, and the condensation of some parts in particular, and, in consequence, a unanimous document based on that

draft could not thus be prepared for the approval of the Council, and there was not sufficient time to prepare another before the sitting of the Board. A good deal of discussion arose respecting the nature of a Memorial to embody the views of the Council, so that the objects they have always had in view should be fairly and properly stated; and after the matter had received due consideration, it was decided to add two other members to those at present forming the Committee, and leave the arrangement of the Memorial to them.

Mr. W. Arthur Cherry, the Honorary Secretary to the Registration Committee, laid before the Council the circular which the committee had drawn up, as also the advertisement, and stated the plan generally proposed to be adopted in the present stage of the Registration, all of which met with the high approval of the Council. Progress was also reported. Mr. Arthur Cherry stated, in the course of his report, that there were not near the number of circulars sent to those members whose addresses were known as he could wish; but he had found that there were so many additions, alterations, and corrections—those already known amounting to nearly two hundred—that there had been sufficient occupation to get them into something like form; that the replies from members generally were very satisfactory, and evinced every desire to assist in the object sought.

A letter from Dr. Mercer, in reply to the question directed to be put to him at the last sitting, was read by the Secretary, in which the fact was admitted that he, Dr. M., had given a report to the Highland Society, not having made such report to the Council, and referring the Council to the Report itself, but not stating how or where such Report could be seen.

The Secretary wrote to the Secretary to the Highland Society, asking for a copy of this said report of Dr. Mercer's, or begging to be informed where the same could be procured, to which a reply was received—that, as this report had not yet been fully considered by the Council of the Highland Society, he, the Secretary, was not at liberty to furnish a copy, nor, of course, was the same as yet published.

There could be now no doubt that Dr. Mercer had acted improperly, as Dr. M. had himself admitted the fact. The question, therefore, assumed two forms; first, whether the Council should at once proceed to the consideration of the question; or, secondly, whether another application should be made to Dr. Mercer, applying for a copy of the report he had sent to the Highland Society, and thus giving him the opportunity of explanation.

Parties were divided on these two opposite points, and strong opinions were given on both sides; but, ultimately, the second form

of procedure was adopted, and embodied in a motion made by Mr. James Turner, "that Dr. Mercer be again written to for a copy of the report he had sent to the Highland Society;" it was seconded by *Mr. Arthur Cherry*, and the Secretary was directed to write to Dr. Mercer, in accordance with the views adopted by the Council, the object being, that Dr. Mercer should have every opportunity of explanation given to him prior to the matter coming before the Council for final consideration, as Dr. Mercer might be able to give such explanations as might materially alter the appearance of the whole affair.

Mr. Mayhew, on the part of Mr. Fores, the publisher, of Piccadilly, applied for leave to dedicate a forthcoming work on the Teeth of the Horse to the President and Council of the Royal College of Veterinary Surgeons. Mr. Mayhew stated, that this application was made out of respect to the governing body of the now incorporated veterinary profession, that it was a work connected with the profession over which they presided, and that he could not see that any objection could be urged towards the refusal of the application.

Mr. Cherry, sen., opposed the granting of the application upon two grounds; first, that a dedication, in his mind, implied that those to whom a work was dedicated were acquainted with it, and were therefore answerable for the goodness of its contents; secondly, that if they, as a body, had the power of granting, they had also the power of refusing. He proceeded, in a manner peculiarly his own, to support his views; but all that could be gathered from them was, that the application should not be granted because that was asked for as a favour which could be done without *any leave* being asked or obtained.

Mr. Mayhew replied, that if all to whom works were dedicated had to be held answerable for the contents of such works, these parties would be in a very unenviable position. As an instance, he would mention a work called "Kensington," dedicated to her Majesty the Queen, which work was of the most obscene and immoral nature; yet such a work was dedicated to the Queen. Now, would any one suppose that her Majesty could know any thing of such a work as this? and though the words, "with permission," made a dedication more particular, yet these words were just as often as the dedication itself used without any application whatever being made.

Other members took very similar views; and, as a matter of course, permission was granted, with thanks for the courtesy shewn by the application.

A considerable share of time was occupied by the signing of cheques by the President, in the presence of members of Council,

two of whom had also to countersign each cheque. This business had been rather delayed, in consequence of the inability of the Treasurer to attend the last meeting: neither was he able to attend at this meeting, in consequence of the death of his highly respected father.

VETERINARY JURISPRUDENCE.

Worcester Assizes.

Hipkins v. Marshall.

In this case Mr. Lee and Mr. Gray were for the plaintiff, and Mr. Sergeant Allen for the defendant.

Mr. Hipkins is cashier in Messrs. Ruffords' bank, at Stourbridge, and has a farm called Woolscote, in the neighbourhood of that town. In the beginning of October last he purchased two cows from the defendant, a farmer in the neighbourhood of Birmingham, for £40, which defendant had warranted to be sound and free from disease. The cows were delivered to plaintiff on the 2d of October. Defendant's servant's attention was called to the fact of one of them appearing unwell, and, on the 5th, one of them died. It was opened, and the lungs were found to be a mass of disease; no less than five gallons of matter having been found in the chest. The result was, that others of plaintiff's cattle, horses, and pigs, were seized with the same disease. Plaintiff then demanded £18 as the value of the cow from defendant, minus £5 which had been received for the diseased carcass. The following was the evidence adduced:—

Benjamin Prichard, cowman to plaintiff, recollected two cows being brought to his master from Mr. Marshall on Thursday, the 2d of October. One had a dreadful hoarseness. She calved on the Friday morning, and was properly treated, but got worse, and died on the Sunday morning. That day another of the cows was seized, and also all the pigs.

Cross-examined.—The cow was not much "showy" for calving at all when it was brought home, and Mr. Woolryche, the butcher, was sent for to the cow, but not "to save her life by killing her." The animal was "dressed," and taken away. Does not recollect who took the carcass away; does not know how much was paid for it, but knows that Woolrych did not take away the cow. I swear that I don't know the man who sent for him who fetched away the cow. I swear that I don't know where the cow was sent to. I swear

that I don't know what it was sold for; and all that I have said is true, that I swear. (Witness pronounced the last word with most ludicrous solemnity.)

Mr. Edward Hipkins, brother of the plaintiff, in October last, saw two cows on the defendant's premises. Met Marshall on the road, and told him that he had been to his house and had seen two cows, describing them. He asked forty guineas for them. Witness offered £40; defendant lowered the price to £41, and said that they were cheap, and he appeared reluctant to sell them. Witness said he would give the other pound if defendant would keep them until the other cow had calved. He said there was no danger about the calving; he warranted them sound. Witness said he would only give £40 for them, and he agreed to send them. One was put down at £22, and the other, the unsound one, at £18. Defendant's place is eight miles from plaintiff's farm. Saw the cow on Friday; she appeared to be sunk: she coughed several times. Saw her again on Sunday afternoon, and saw her die. Woolryche opened the cow that same night in witness's presence. Mr. Ford, veterinary surgeon, saw the animal that night. The liver and lungs were twice as big as natural, and there was a great deal of matter and water in the chest. Saw defendant, a day or two after, at Birmingham market, and told him that one of the cows was dead, and "as rotten as a pear." He said he was sorry to hear it, and asked what was done with her. Witness told him that she was sold for £9. He said the cow was fooled away; she was worth £14 any way. Witness said he thought he had sold it for a good price. Saw him again that day, and asked him "how about the cow?" and he said that he did not consider that he was liable. On the 15th of January saw defendant again, and asked how he meant to settle about that cow, and he said "he would make it all right in a week." After the week Hipkins saw him again, and said, "Marshall, I'm surprised at you: my brother is determined, if it is not settled to-day, to proceed against you." He said, "Oh, he has not been in a hurry about proceeding;" and, when witness told him the reason was that he had induced him to refrain because he thought he could make him settle without, Marshall said, "he would have his head cut off before he would pay one penny for it." The other cattle and pigs took the disease.

Cross-examined.—Sold the cow to a man who came for it about six o'clock on Monday night. Does not know the man; does not know the place he came from; never saw him before nor since. The man looked like a butcher. The animal was as "rotten as a pear." The lungs and liver were buried on Sunday evening. The carcass and hide were sold together. The calf was probably worth a crown.

George Woolryche, butcher, Oldswinford.—On 5th October was sent for to plaintiff's farm, and was requested to dress the cow. Witness corroborated preceding witnesses as to the state of the cow. Thinks the lights weighed fifty pounds; if healthy, they would have weighed from twenty-five to thirty pounds. Thinks the cow had been diseased for some months. Saw defendant at Birmingham, and asked him about the cow. He told witness not to speak of it in the market, as it might do him a serious injury, and he would make it all right with Mr. Hipkins. Marshall also told him to tell Mr. Hipkins to whitewash all his cow-houses, and prevent any of his cows coming near the stall the dead cow had occupied.

Cross-examined.—They do have cows that die dressed. Is sure that any farmer who had a cow die would have her dressed, and make what he could of it. Any honest farmer would do so. Never saw the man who bought the cow, and does not know who he was. Plenty of people saw the inside of the cow, but Green, a cowleech, did not see it. "Two of my sons were present *for one*" (laughter). One of them is thirteen, and the other twenty; but neither of them is here, as our party don't want them."

Mr. William Ford, veterinary surgeon, Stourbridge, was called in to see the cow in question. The lungs were in a state of decomposition; the heart was healthy; the liver was greatly enlarged. The lungs contained a great number of tubercles and mass of matter. From the state of the diaphragm and adhesions on each side, believes the disease to have been of some months' standing. Was paid 10s. 6d. for inspecting the animal.

Mr. John Rose, veterinary surgeon, of Worcester, deposed that the symptoms described by Mr. Ford proved that the disease had been of some months' standing.

This was the case for the prosecution; after which, Mr. Sergeant Allen addressed the jury at great length for the defendant, contending that the cow had died from the effect of travelling, being near calving, and not from any other disease. He then called the following witnesses:—

Thomas Underhill, cowman to defendant, deposed that the cows in question were sound when sold.

Cross-examined.—Fifteen of his master's cows died of the distemper. Believes himself to know more about cows than all the veterinary surgeons in England, but does not know what a tubercle is. Knows what effusion of water is: it is a stoppage—[immense laughter].

The cow-driver proved that he drove the cows quietly from the defendant's to the plaintiff's.

Mr. Charles Till, veterinary surgeon, Worcester, deposed that

there is a new disease lately sprung up among cattle. From twenty-four to forty-eight hours, and to three days, is the usual space in which this disease runs, and terminates fatally. A cow in calf, driven ten miles in a day, would be very apt to take the epidemic. If tubercles were seen, that must be evidence of the disease having existed for some time. The symptoms described led him to believe that the cow died from the effects of acute inflammation, induced by her having been over-driven very near the period of her parturition.

Cross-examined.—The disease among cattle was very prevalent while witness was at the Veterinary College, and he had much experience of the disease, because all the London dairies were thrown open to the students. If the liver and lights were enlarged, and tubercles were found on the *post-mortem* examination, then the disease certainly existed long before the 1st of October.

Mr. Thomas Ludlow, butcher, Birmingham, is too much acquainted with diseases that attack cows. Has had cows examined by "vets." one afternoon, and next morning has found some of them diseased. "I have had," said witness, "some of them examined by what they call the 'tethescop,' if any of you gents. know what it is; and for all that they were said to be all right, yet they died" [a laugh]. This was the case for the defendant.

Mr. Lee then addressed the jury for the plaintiff in reply, and in a very humorous and telling speech contended that, if there had been any thing wanting in the evidence for the plaintiff, that for the defendant had abundantly supplied it.

His lordship, in summing up, gave an exceedingly neat and most concise *vidimus* of the whole case; remarking, that seeing the action was brought for £9, and the sole question was, "Whether the cow was healthy on the 1st of October or not?" he did not think the jury required much comment from him.

Verdict for plaintiff—damages, sum claimed.

Attornies for plaintiff, Mr. Harding; for defendant, Mr. Bray.

VETERINARY OBITUARY.

THE members of the veterinary profession will receive with sorrow the intelligence of the death of Mr. King, of Stanmore. That much beloved and much respected gentleman—no less so in than out of the profession, by all who had the good fortune of his acquaintance—died rather suddenly, at his residence, at Stanmore, Middlesex, on Sunday evening, the 27th of September, having

survived "the days of our age"—"three score years and ten." For some time past Mr. King had been complaining of inroads upon his accustomed good health. He had had, indeed, one or two alarming attacks. Still he got about again, and was, only two days antecedent to his last, on a visit to his daughter at Kilburn.

So lately as the month of September—the very month of his departure—does THE VETERINARIAN, of which he was to the last a staunch supporter and a welcome correspondent, contain "observations" from his pen "on crop-sick in poultry," accompanied by a private letter to Mr. Youatt, promising soon again to resume that pen, and in reference to the editorial remarks made in the preceding number of the Journal. That promise, alas! was never to be fulfilled.

Mr. King's death will make a serious breach in a valued circle of private friends, whose society he missed no opportunity of enjoying; and there is one little knot of *professional* friends too —friends whom he thought of to the last, a memorandum having been found in his pocket-book of their very next social meeting—among whom his loss will be deeply and sincerely lamented. Never, never more will their ears be delighted with his "Southerly Wind and cloudy Sky;" never again will the glasses upon their table ring with his thrilling whoo, whoop! The fell tyrant has robbed the veterinary club of a brother whose kind and honest and open heart, bright and cheering smile, and welcome song, have left not their equal behind them.

MISCELLANEA.

Edinburgh, October 9th.

My dear Sir,—I BEG to enclose you a specimen of the mode of advertising a "horse" in the "far west," extracted from the columns of "The Royal Gazette," George Town, British Guiana, Aug. 29, 1846.

I remain,

Your's truly,

Wm. Youatt, Esq. J. MERCER.

At the City Sale Rooms,

"The Great Horse"

Will be set up for Sale on the 9th Sept. 1846, at noon;

A strong, staunch, steady, sound, stout, safe, snug, serviceable, strapping, supple, swift, smart, sightly, sprightly, spirited, sturdy, shining, surefooted, sleek, smooth, spanky, well-skinned, sized and

shaped, leather-coloured horse, called "Tappin;" with small star, and swift, square bodied, slender-shouldered, sharp-sighted, and steps stately; free from strain, sprain, spasms, spavin, stringhalt, staggers, strangles, seeling, sallenders, surfeit, seams, strumous swellings, sorrances, scratches, splint, squint, scarf, sores, shuffling, shambling gait, or symptoms of sickness of any sort. He is neither stiff-mouthed, shabby-coated, sinew-shrunk, spurgalled, saddle-backed, shell-toothed, slim-gutted, surbated, skin-scabbed, short-winded, splay-footed, or shoulder-slipped; and is sound in the sword point and stifle joint. Has neither sick-spleen, sleeping evil, sitfast, snaggle-tooth, sandcrack, subcutaneous sores, or shattered hoofs; nor is sour, sulky, stubborn, surly, or sullen in temper; neither shy nor skittish, slow, sluggish, nor stupid; he never slips, trips, strays, stalks, starts, stops, shakes, snivels, snuffles, snorts, stumbles, and seldom sweats; has a showy, stylish switch-tail, and a safe set of shoes on: can feed on stubs, straw, seage, corn, or Scotch grass; can carry TEN STONE with great speed and long strokes.—Upset price low.

S. G. JACOBS, *Auctioneer*,
Aug. 25th, 1846.

ABOLITION OF SMITHFIELD MARKET.

[From the "Daily News."]

SINCE the laws against forestalling and regrating have been repealed, the proposed enlargement of Smithfield Market is perfectly unnecessary; at least, half London might be supplied with meat by railway from the country, where the cattle may be killed and sent up. The loss occasioned by the driving of cattle to market is immense. A correspondent of the *Times* writes, that a fine bullock sometimes loses eight stone, more or less; and a sheep about a stone in quantity, besides injury to the quality of the meat, and to the hides and wool. There being frequently 1000 head of beasts and 6000 sheep and lambs at market, besides pigs and calves, it follows that the loss is great in the extreme. Even taking it at half, the amount would be 6000 stone of meat lost in one market, which would feed, at half-a-pound each, 96,000 persons; and this, repeated market after market, would sustain seven millions in the course of the year. Add to this, the driving of beasts through the crowded thoroughfares of London is both inconvenient and dangerous. That a market for the abundant supply of the metropolis should exist, independent of country supply, no one can doubt; but it should be placed in the suburbs. Energy should, therefore, be directed to the abolition instead of to the enlargement of so great a public nuisance as Smithfield Market.

The Cattle Epidemic.

Independently of upwards of thirty valuable cows belonging to the crown, and to H. R. H. Prince Albert, which have recently died from the prevailing disease, a number of Scotch beasts in Windsor Great Park have also been attacked, and no less than seventeen have died. Although there are cattle from various parts of the kingdom all grazing together in the Great Park at Windsor, the only description of beasts which have been attacked are those which were bred in Scotland.—*Daily News.*

*** Inquiries on our part confirm, in the main, the truth of this statement. It appears, in the whole, that the Crown, whose property the cattle ranging the Great Park at Windsor are, have been attacked with the disease, of which some have died; and that they have since sold off the remainder of their stock to get rid, if possible, of the destructive murrain. Another proof the disease is not contagious.—Ed. Vet.

It appears that a fatal distemper has for some time prevailed among the cattle in several villages in the immediate neighbourhood of Gainsborough. We are given to understand that one gentleman, at Bole, has lost the whole of his stock, and that several others had suffered injury, but not to the same extent. At Lea, the ravages of the disease have been equally severe. One of the farmers has lost, at different times, nineteen head; others have had their losses, but not to the same amount. Some of the farmers feeling the alarm, and fearing future disasters, have, it is said, nearly resolved on disposing of all their cattle.—*Nottinghamshire Journal.*

An epidemic disease among the cattle has lately made its appearance in the Bas-Rhin. In the commune of Croix four horses have died of it. A. M. Vallaumier, after having made the autopsy of one horse, had the imprudence to lance a blister which he had on his upper lip with an instrument that he had used in the above operation upon the horse. The consequence was, an inflammation, of which he died on the following day in frightful agonies.—*Morning Chronicle.*

Cruelty to Calves.

Marlborough-street.—Henry Holt, calf-dealer, Colebrook, was summoned by the Society for the Prevention of Cruelty to Animals, for cruelly and wantonly torturing several calves. The summons

was taken out with a view to try the question, whether the customary manner of bringing calves to market occasioned that amount of torture which brought the dealer within the operation of the act.

Mr. Thomas, the secretary, was in attendance on behalf of the society, and Mr. Duncombe attended for the defendant.

Mr. Allen, barrister, of the Temple, said he saw the defendant and another person driving a cart westward, at a quick pace, with calves in it. Three of the calves, with their legs tied, were placed in the cart with their heads hanging down, so as to cause great torture to the animals. Witness pointed out the state of suffering to which the calves were obliged to submit, in consequence of the cruel way in which they were carried, and was abused by the defendants for his pains.

Cross-examined.—Had said to one of the defendants, on receiving insolence from him, that he would wish for nothing better than to punish their brutality by taking them one after the other, and giving each a sound thrashing. Was certain that the calves sustained great torture in consequence of the way in which they were carried in the cart. The cries and motions of the animals indicated the state of suffering in which they were. Was aware that the way in which the calves were carried was the customary mode of bringing them to market, but was satisfied this was a very cruel method of carrying them.

Mr. Duncombe expressed his surprise that the society should have brought such a case forward, after the question had over and over again been settled against them by the city magistrates. The society had formerly so far interfered as to provide a calf-cart for the Buckinghamshire graziers; but this cart was found to inflict so much real torture that it was abandoned. Every thing was done to convey calves with humanity, and no way existed, but the way adopted by the defendant, to bring them properly to market. It was preposterous to suppose that parties would wantonly torture and injure their own property. There was no way to bring calves to market with advantage except by tying their legs and allowing their heads to hang out of the cart. A calf when first taken from its mother, if placed at the bottom of the cart, would knock its eyes out, or do itself some serious injury; it was, therefore, necessary to hang its head out of the cart. If placed on its legs in the cart, it would be knocked down and trampled to death. He would prove by witnesses, that the most merciful way to carry calves was to tie their legs and place them in the cart with their heads hanging down.

Henry Gates had brought calves to market for thirty or forty years. If calves were not carried with their heads hanging down, they would injure themselves. Never knew any harm to come to

a calf from being carried with its head hanging down. If calves were placed in the cart with their heads loose, they would injure themselves; if placed in the cart standing, with their legs at liberty, they would smother each other. Witness and witness's father had brought calves to market, and had always carried them with their legs tied and their heads hanging down, and was convinced that this was the safest, the kindest, and most merciful way of carrying calves.

Cross-examined by Mr. Thomas.—He had never known calves to die in the cart in consequence of being carried with their heads hanging down. The calves did not usually become insensible on their way to market, owing to the position in which they were placed. A cart invented by the society had been tried, and found not to answer. Did not know whether farmers had taken a prejudice against the cart and refused to use it.

Re-examined.—The man who drove the society's cart said, the calves could not be kept in it; they were slipping out of the cart constantly.

By Mr. Thomas.—Had known the legs of calves to be cut through to the bone by the time they arrived at market, in consequence of being tied too tight. Had not known an instance of this sort for two years, since the new fastening for them had come into operation.

William Kirby, calf-dealer, said he was with the defendant in the cart, in which was fifteen calves, with three placed so as to have their heads hanging over. It was necessary to take such a step with three of the animals, otherwise these calves, which had recently been taken from their mothers, would have knocked their heads to pieces. Recollected the witness Allen coming up to them, and saying they were two cowardly fellows, and if they would get out of the cart and take off their clothes, he would fight them one after the other. Witness said he was no fighting man. Witness was certain that calves could not be carried to market in a more kind and merciful way than the way adopted by the defendant, which was the usual way of carrying such animals.

By Mr. Thomas.—There were only two calves with their heads hanging down; there were nine calves in the bed of the cart, but they did not require to be carried in the same way, as they had been tied before. Had never known an instance of a calf carried with its head down dying on the road. Calves carried this way for forty miles, when untied, would run about fresh, and none the worse for their journey.

Mr. Duncombe said he had other witnesses, who would prove the same facts; but he thought it was unnecessary to call them.

Mr. Maltby, after a short deliberation, said, "the evidence before me leaves no doubt on my mind that the animals were in a state of extreme torture owing to the way in which they were carried. The defendant was also driving at a pace which must have increased that torture; and when attention was drawn to the circumstance, he made no alteration whatever. This makes it a deliberate act of cruelty on the part of the defendant. It is said that the defendant only carried the animals according to the general custom, and that no other way existed of carrying them to market; but custom or usual practice is no answer to a charge like this, if the practice or custom is cruel. The evidence proves that, in a cart less crowded, calves may be carried with less torture, and I shall, therefore, inflict a penalty of 40s., against which you can, if you choose, enter an appeal."

Notice of appeal was given.

The Times, June 26th, 1846.

Canine Sagacity.

A SINGULAR instance of canine sagacity and affection was discovered the other night in an unfrequented part of the beautiful den of Craighall. A bitch of a superior description, belonging to Mr. Walker, of Cassindilly, has several times had pups, which have always been drowned. On those occasions she has evinced great uneasiness and distress; and on the present resolved, if possible, to secure her young and rear them in safety. For some time past she had been observed to leave the farm and return at regular intervals for her food, and so anxious did she appear to keep her retreat secret, that she was often known to go out to a high place near the farm and wait until she saw her road clear, when she would run off in some new direction; but she was never known to take the same road twice. Once or twice she was noticed about Craighall, and after a search it was found that she was rearing her young family in a hole in one of the old quarries, at the distance of two or three miles from the place where she received her food. As a reward for her fidelity and attachment, her young have been taken under charge by Mr. Brown, the keeper of the den, and food has been supplied to her, so that she continues to nurse her pups in the place where they were born. There have been many applications for the pups, which are dogs of a first rate appearance.—*Fife Herald.*

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FIRING FOR SPAVIN.

By WILLIAM PERCIVALL, *M.R.C.S. and V.S.*

[Continued from page 610.]

THE OPINIONS OF VETERINARIANS OF OUR OWN DAY on the important subject before us, fortunately for me on the present occasion, are obtainable in a form and to an amount that will, I can entertain no doubt, prove highly satisfactory to all who desire to institute comparisons between the old and the new school of veterinary surgery. In the year 1837, Mr. Mayer, jun., of Newcastle-under-Line, read a paper* to the Veterinary Medical Association "On the Actual Cautery and Setons, and the Utility of each in Veterinary Surgery," which is not only in itself a valuable production, but has proved, in the issue, of very great service to us, inasmuch as it became the means of eliciting, in the course of the debate to which it gave rise, the opinions of some of the oldest and most experienced practitioners of the day.

MR. MAYER (jun.) himself, has found the actual cautery, as a remedy for spavin, of superior and permanent efficacy. The cautery has, with him, succeeded when setons have failed in establishing a cure; and "not alone for the cure of spavins," but for other diseases as well.

MR. SIBBALD, "with one exception the oldest practitioner present" on the occasion of the discussion of the paper, said, "so far as osseous deposits were concerned, and *spavins*, and lamenesses referrible to the tendons of the fore legs, he had frequently found setons altogether fail; and then, the firing-iron being resorted to, the horse had been cured."

* Afterwards published in THE VETERINARIAN for 1837.

MR. THOS. TURNER—the present President of the Royal College of Veterinary Surgeons—"for twenty years had been accustomed to have recourse to the heated iron *in almost every case of lameness belonging to the leg*"—"He had performed (with it) hundreds of cures that could not have been accomplished by other means."—"For osseous tumours, for lesions of the thecæ of the tendons, whether the perforatus or perforans; for all injuries of the suspensory ligament, &c. is there—he spoke to practical men—any thing equal to the firing-iron? The same with tumours on the outer and inner ancle. The same with *spavins*."

MR. SIMONDS regarded the question as one of *comparative* value and usefulness. "In the incipient stage of spavin, a seton might arrest the progress of the evil; but when there had been bony deposit, and the action of the joint had been interfered with, nothing but the actual cautery could effect a cure."

MR. BRABY was decidedly of opinion that, "with regard to most of the lamenesses of the horse, setons were quite inefficient, and must give way to the scientific application of the cautery."

MR. HUTCHINSON.—"I have had horses under my care with spavin which I have fired in the usual way without any good effect. I then have had recourse to the seton, and they have become sound." And this "was bone spavin, and I fired deeply."

MR. SPOONER—Deputy Professor, Royal Veterinary College—admitted to the fullest extent the action of the cautery as "a counter-irritant," and to a considerable extent its action as "a local depletive;" but repudiated the notion of its acting "as a bandage."—"He was an advocate for firing in certain cases; and he undoubtedly agreed with Mr. Turner—when you fire, fire!"

MR. TURNER (James) did not wish to decry the operation of setoning; he knew the occasional good effects of setons, but he also knew the good effects, the incalculable benefits, arising from firing.—"He could not refuse to divulge one startling fact arising from the firing operation. He called it 'startling,' for the effect was magical. Whether he undertakes the cure of ringbone or spavin, or of osseous tumours generally, or of ligamentous swellings, the very moment that he penetrates the tumour to a certain depth, the lameness vanishes, and the patient becomes in a manner a sound horse. This may be considered as a novelty in veterinary practice, but it is a true fact, not occurring in every case, yet not unfrequently seen." This he accounted for by "penetrating deeply the diseased part, and actually *neurotomizing* it."—"Much is accomplished by the penetration of the iron at the time; and afterwards considerable sloughing ensues, and the parts become nearly or altogether insensible, and the horse can go and can work like a sound horse, and is capable of almost every thing he

could effect before he became lame."—"That can be done by deep firing which never was accomplished by superficial firing."—"He believed that the neurotomizing the part was the principal agent in the cure; but still he had always thought that the artificial bandage thus produced was a most important agent in causing the absorption of osseous or other tumours."

MR. CHEETHAM advocated firing in preference to the seton, which, regarded "merely as a counter-irritant," he thought "was not equal to a blister." The actual cautery was "one of the most powerful of remedies."—"As to firing being a bandage, there was no doubt about the matter."—"Spavin was not so much a disease of the mucous membranes, as it was primarily a ligamentous disease."

MR. HOLMES thought, in the use of the firing-iron and the seton, the distinction to be drawn was "the length of time the disease had existed, and the evident change of structure that had taken place. The great objection to firing was the blemish that it left, and the consequent diminution of value entailed."

MR. YOUATT thought that in spavin "the seton might be most advantageously employed." He reprobated the deep cautery lesions of Mr. Turner, but was fully impressed with the benefit said to accrue to the fired parts from the old and new skin growing tight and inelastic, and "acting as a bandage" upon them.

MR. DAWS preferred—"for thorough-pins, spavins, and curbs,"—"*the iron* beyond dispute." But in firing he has rarely penetrated the skin without having had cause to repent of it." In two instances of "broken down" horses, fired for experiment, deep cautery lesions, such as were recommended by the Messrs. Turner, were followed by death.

MR. BEESON was the decided advocate of the seton. Conjoined with blisters, he has found it perfectly efficacious. He could safely say, he had not fired for fourteen years.

THE WEIGHT OF EVIDENCE OF THE VETERINARIANS OF THE NEW SCHOOL, afore-named, preponderates in favour of "giving the fire" for spavin; setons being for the most part regarded either as unadapted to the case, or as remedies inferior in point of efficacy; and blisters being set down lower still in the scale of curative agents. It therefore being a settled point that it is our duty or best policy to give the fire, the next question we have to ask ourselves—one that likewise fell under discussion in the course of the afore-mentioned debate—is

TO WHAT DEPTH OR EXTENT THE FIRE SHOULD BE GIVEN? From what we can collect from the old authors, some of them appear to have made pretty free use of the iron. Gibson speaks of the wound he made with the cautery being "half-an-inch deep,"

though but "an inch in length." I can well remember that my father used his firing-irons with great boldness; and my impression is, that at that day, thirty or forty years ago, such was the *general* practice of firing. At the time, however, that setons came so much into vogue, at the London Veterinary College in particular, and after the introduction of periosteotomy by Professor Sewell, firing became much decried as a cruel and unnecessary operation, it being alleged that setons were fit and efficient substitutes for it. In these attempts to discard the red-hot iron out of the veterinary surgery—as it had already been cast out of human practice—there was manifest a most praiseworthy spirit of philanthropy, descending from the man upon the brute, and alighting upon that brute which we most deservedly hold in especial regard: yet was there one paramount consideration—one insurmountable objection to turning the cautery out of doors—neither medicine nor instrument was left in our hands which, in *certain cases*, could supply its place; and, therefore, had we persisted in relinquishing the use of the hot iron, we must have confessed ourselves unable to work cures in many inveterate and all-but-hopeless cases which, with its aid, we now successfully undertake. But, said another class of veterinarians—among whom, I am not ashamed to confess, I, in former days, stood myself—"cannot we effect all we desire or require by

SUPERFICIAL FIRING?" by which is generally meant, firing that does not penetrate the skin—the cutis vera. It was thought that—for the sake of the sufferer—this sort of compromise might be made. Those veterinarians, however, whose practice lay the most in hunting and racing counties, and who had not only spavins and curbs to contend with, but had frightful cases of what is called "broken down" to mend or restore, found from experience that, with them, nothing would suffice short of the *deep cautery lesion;* and the first person to remind such practitioners as might have been led astray by the practice of setoning, &c., or the error of supposing that deep firing could be dispensed with, was Mr. James Turner. So long ago as the year 1830, "AN INQUIRY INTO THE CIRCUMSTANCES WHICH HAVE BROUGHT INTO DISREPUTE THE OPERATION OF FIRING FOR LAMENESSES OF HORSES, WITH AN IMPROVED METHOD, AND SUGGESTIONS FOR ITS ADMISSION INTO HUMAN SURGERY," was sent by Mr. Turner to *The Lancet*, and from that journal copied into THE VETERINARIAN. In this "inquiry," after stating that "experience gained by a long practice in a hunting country notorious for its hills and flints incapacitating the legs of horses"—"his desire is to 'see the phœnix rise from its dying ashes'"—which I interpret to be the restoration of the old or deep method of firing—he informs us, "my practice in

firing horses has convinced me that the success of the operation, *if performed for the removal of lameness*, where the ordinary means have failed, whether situate in a joint or a sinew, depends solely on making each separate line or incision from end to end, completely *through the skin* or common integuments, *cutis* as well as cuticle, and boldly exposing the cellular tissue forming the immediate covering of the ligaments, tendons, periosteum, &c., with all due caution, of course, not to pass the instrument so near as to wound or scar these important structures." In spavin, his practice, as we have already seen, is to "penetrate deeply the diseased part, actually neurotomizing it."

In a case of *articular* spavin I feel no hesitation whatever in saying, that the deeper or more severe the firing, the greater, in fact, the counter-irritation produced, the greater is likely to be the benefit accruing therefrom. Persons who have been fond of plugging the spavined hock with caustic, after making perforations in the exostosis with the actual cautery, have often succeeded in conferring signal and permanent relief; and I look upon this severe application of the firing-iron as much the same in regard to effect, there being risk in both cases of doing harm by inducing sloughing beyond what was intended, and in neither case being there any *absolute certainty*, when the case is one of inveterate and established lameness, what will be the result.

There is a notorious fact in regard to spavins in process of cure or under treatment, which must not be lost sight of; and that is, that, notwithstanding a horse may experience a return of his lameness after his first treatment for spavin, or may not, perhaps, have been benefited by it, yet let him become sound from secondary or subsequent treatment, and the chances are he will continue sound at his work, and always afterwards remain so; the explanation of which appears to be, that, so long as any periosteal or ligamentary tissues clothing or connecting the cuneiform bones are left unconverted into osseous matter, inflammation will return, and lameness be the consequence; but, from the moment the cuneiform bones become consolidated from osseous deposition, or completely anchylosed, inflammatory action ceases in the diseased parts: the horse having the main articulation of the hock—that between the tibia and astragalus—left unimpaired, sufficient for the flexion and extension of the limb, efficient, indeed, for all the ordinary purposes of motion, and constituting of itself in action what commonly passes for functional soundness.

A few words in reply to Mr. Turner.

Little did I suppose, when I heard it rumoured my old schoolfellow was heating his irons, that I was to be his subject for firing.

And when I perused the opening lines of his communication, approving and commending me, how could I imagine that his intention was to inflict his "deep cautery lesions" upon myself?

It is to me unaccountable how my friend can misconstrue my language into "writing down" the operation of firing. There is but one single quotation he has made from my papers that will bear any such-like construction, and that quotation he has, by putting words in italics which in the original stood in roman, distorted from my meaning into his own.

Mr. T.'s version of Mr. P.'s text.	*Mr. P.'s own version of his text.*
"I am very much inclined to the belief that the *success derived from deep firing* and blistering is, in a measure, ascribable to the extremely sore and rigid condition of the skin," &c.	"I am very much inclined to the belief that the success derived from deep firing and blistering is, *in a measure*, ascribable to the extremely sore and rigid condition of the skin," &c.

And this my friend calls my "extraordinary version of the *modus operandi* of deep firing." Indeed, it would be "extraordinary," and ridiculous as well, had I, who pretend to write on such a subject as firing, nothing lengthier or better to offer by way of modus operandi than a sentence like this? It so happens, however, that my veritable *modus* was actually in print *before* my friend's comments were put to press, and that both appeared, fortunately for me, in the same number of THE VETERINARIAN. Surely, he will not say, after having perused my paper for last month, that I had any intention of "writing down" firing.

My friend's "astounding fact" about the lame spavined horse, after having been fired on his "improved method," getting up and "trotting off free from lameness," requires but a trifling addition, and that is PROOF. I am put in mind by it of Mrs. Glass's directions, about first "catch your hare;" in accordance with which wholesome counsel, I say, first *prove your fact*, and then I will endeavour to analyse it.

CURIOUS CASE OF VOLVULUS ILEI.

By W. J. GOODWIN, *M.R.C.S., Veterinary Surgeon to the Queen.*

ONE of Her Majesty's road carriage horses was seized at the Royal Mews, Windsor, early on Sunday morning last (Nov. 1st, 1846), with what appeared to be a violent fit of colic. My assistant lost no time in administering the usual treatment I pursue in such cases; but as it afforded no relief, a messenger

was sent to the Cavalry Barracks, to Mr. Percivall, of the First Regiment of Life Guards, to request his advice in the case. Mr. P. found the horse expressing great pain, evidently abdominal, and yet not of the intermittent character of cholic: neither did it seem to him an inflammatory attack, the horse having fed well during the night: the sudden accession of pain, and the short duration of time that had elapsed, with the state of the pulse, which though quick was weak and in nowise thready, made him rather conclude that the symptoms were not those of enteritis or of any other "*itis*." Mr. P. did not bleed, but ordered an antispasmodic aperient drink, containing æther and laudanum, and gave directions that the same should be repeated if the pain continued. The horse also was raked, and had several enemata administered.

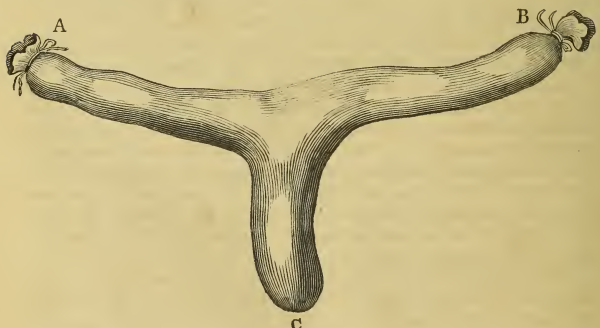
Four hours afterwards Mr. P. was again sent for, the horse having experienced no relief, and a full blood-letting was then had recourse to, the pail being taken from the neck only when symptoms of syncope appeared. About xii lbs. of blood had been abstracted, another drench given, and now a tobacco-smoke enema was exhibited; all remedies, however, proving of no avail. In four hours after this Mr. P. visited him a third time, and found him in as great pain as ever. I had been sent for in the interim; and I only arrived to witness the agony and suffering of a noble animal, without being able to suggest any remedy that could in the least alleviate such torture. It was distressing to see the animal rolling and throwing himself in every posture to give the least ease, and, whenever he could do so, to get upon his back. When Mr. Percivall left him, he instructed my farrier to give calomel and opium, and to stimulate the surface of the abdomen; but I was convinced that the case was hopeless, and merely continued the opium in the hope that it might mitigate his sufferings. No fæces had passed during the day, and, indeed, none since the commencement of the attack; and on introducing my hand and arm almost up to my shoulder in the rectum, I could feel nothing like fæces or obstruction, and the surface of the intestines was cooler than usual, and covered with its natural secretion: these circumstances made me conclude that there was an obstruction in some part of the intestinal canal. The poor beast lingered without remission of his symptoms till two o'clock, P.M. on Monday, when death put an end to this melancholy case. Had the horse been my own property, I should not have hesitated to have destroyed him the first time that I visited him.

Post-mortem examination.—My convictions proved but too true,—the case was one of volvulus. The ileum had got strangely and curiously twisted, and was bound down at each turn or twist by folds of mesentery, and so complex was the knot, that it was difficult after death, and with the parts exposed, to disentangle them;

and this could not now be done without first snipping the mesentery in places to relieve the confined portions of gut. What was, however, extraordinary in this case, and what I never before witnessed, was a lusus naturæ, in the shape of an appendix or pouch, in the strangulated portion of the ileum, and which had, no doubt, much to do with causing the strangulation: at all events, the appearance of the malformation at that part of the intestine which was involved in the offending parts, would lead one to conclude that it had been instrumental in producing it. The strangulated portions of the intestine were of a dark modena red colour, from intense inflammation; but mortification had not taken place. The stomach was distended to twice its usual bulk, and, with the intestines above the knot, was as full as the canal was empty below it. The latter had clots of coagulated blood on their internal surface.

In 1829 I communicated a very similar case through the pages of your Journal, and which occurred in a favourite horse of George IV. The strangulation, however, in that case was caused by an "appendicula epiploica" having formed a knot in the ileum, which could not be undone, even after death. The king expressed such a wish to see the parts after death, that, they being too stinking—in the month of May—for His Majesty's chamber, I had the parts cast in wax; and they were coloured so true to nature, that His Majesty was exceedingly pleased, and, like many others, could not but imagine "they smelt," so perfect was Mr. Miller's artificial representation.

The annexed cut will shew the unnatural formation of the portion of strangulated ileum.



A to B the normal canal of the ileum. C the blind appendix, which measures seven inches in length, and is, if any thing, larger in its caliber than the other portions of the intestine.

OPENED JOINT SUCCESSFULLY TREATED WITH BI-CHLORIDE OF MERCURY*.

By T. D. GREGORY, *V.S., Bideford, North Devon.*

I HAVE forwarded you an account of a case of open joint for insertion in your Journal, provided you think it worth recording—not for its novelty, more than that I adopted a plan for its closure which is not very general: it has proved in this case, as well as some others, very successful. The remedy is simple in its application, and, moreover, based upon a chemical principle, inasmuch as we are aware that the synovia which issues from the joint contains a quantity of albumen, and that the bi-chloride of mercury, when brought in contact with it, coagulates it. Our object being to close the joint by forming a temporary plug until Nature herself shall repair the breach by the process of granulation, we have here an agent that will effectually accomplish it, chemically; or, speaking of it in another point of view, the actual cautery is had recourse to in these cases by, I believe, the majority of practitioners. Now, the *modus operandi* of the agent alluded to is nearly the same as a potential cautery, without, I imagine, causing the animal to whose joint it is applied so much pain. But at times, when the orifice is very extensive (as in the case below), it is found a difficulty, nay, almost an impossibility, to arrest the discharge by the latter means.

On the morning of the 12th of October last, my attention was called to a mare the property of Edward Reynolds, Esq., that had fallen while in the act of drawing a cart laden, from the owner's residence to Bideford. On examination I found extensive laceration of both knees, more particularly the near one, and various contusions about the head, shoulders, &c. I ordered her to be taken carefully home, and to have the parts fomented with warm water, and poultices applied. I saw her in about three hours after, when she appeared in a great deal of pain. I examined the wounds, and found the near knee joint open, and a copious discharge of synovia issuing therefrom. I abstracted a large quantity of blood from the neck, and applied the actual cautery to the wounds. Saw her at 6 P.M. Synovia flowing as at first. I again applied the iron, gave her an aperient dose, and fomented the other wounds, &c.

13*th*.—Eight A.M., found the synovia flowing as before. I had taken with me some pulv. hydr. bi-chlor. mixed with some simple powder, in about equal parts. I took a portion of it, and, by means

* Corrosive sublimate was first used in cases of opened joint by Mr. Dawson. See THE VETERINARIAN for 1830, p. 497.—EDIT. VET.

of a small piece of wood flattened at the top, plastered it, as it were, all over the part, left the wound uncovered, and ordered the groom to repeat this several times during the day. The other wounds doing well.

14*th.*—Medicine operating freely—patient pretty easy. From repeated application of the powder it had formed a mass with the synovia as it escaped: I removed a portion of this carefully, and found the orifice leading to the joint almost plugged with coagula. Ordered dressings as before.

15*th.*—Knee swollen, but the discharge very little indeed. At this stage of the proceedings the owner said he thought (as I had previously told him it would be some time, if the case progressed favourably, before the mare would be fit for service, and that there would be expense and trouble attending it, and from her not being at the best a very valuable animal) it would be as well to have her destroyed; at all events, he said, I could leave some of the dressing, and his groom could apply it if necessary, and he would see how she was in a few days.

I saw no more of my patient until the 21st, when I was again sent for. I found the poor animal in a sad plight: she was standing with her head resting upon the manger—the breathing much accelerated—appetite lost—and altogether expressing great pain: the knee and leg were enormously swollen, and, from neglect, the granulations had grown profusely, and much above the level of the other parts; so much so, that I removed several portions with my scalpel. There was no discharge of synovia, nor had there been, as I was informed, but very little indeed since I last saw her, and that on the same day. I felt for the most prominent parts of the swelling about the knee, wherein I plunged my lancet, which was followed by the flow of at least three quarts of blood, which appeared to relieve her: I inserted a seton in the pectoral region, and fomented the parts. On my leaving, ordered it to be repeated.

The next day she was very much freed from pain; she had lain down during the night, and had eaten a bran mash very heartily; the leg was, however, swinging. Before I left I again punctured the swelling, and inserted two or three small setons around, about the knee. From this time she gradually got better, requiring little to be done more than following up the fomentations, and the occasional use of an escharotic lotion to the granulations.

On the 31st she could walk out of the stable, pressing firmly on the foot of the diseased leg, the owner having sold her to a farmer, a client of mine. She walked to his place on the 7th of November, a distance of four miles. She is, up to this date, at grass, with but some little enlargement left about the joint; cicatrization of the wounds also progressing favourably.

Case of Difficult Parturition in a Cow.

By the same.

I thought, while writing you, I may as well mention another case which, perhaps, may not be unacceptable, as I find you do not often receive accounts of this nature, although as important to the country practitioner as any branch of the veterinary profession.

About seven o'clock on the evening of the 27th of October last, I was sent for to see a Guernsey cow, the property of Major Wren. I was informed on my arrival that she had been in labour from two o'clock the same afternoon, and had made but little progress, although the throes were very powerful, and came on in quick succession. On examination I found the two fore legs of the calf presenting. I passed my hand and arm up the vaginal passage, and for some time could not clearly ascertain the position of the head; at length, by pressing back the fore parts in the uterus with my left hand and manipulating with my right, I discovered it to be turned back on the left side. I now withdrew my hand, in order to get a little rest; for persons who are in the habit of attending such cases know the benumbing sensation experienced in the hand and arm, by having it for any length of time in the uterus, opposed to its powerful contractions. I returned again to the attack, an assistant pressing back the fore parts as before. I now reached the ear, but, it being slippery, I could not retain it. I next got one of my fingers into the orbit, obtained a firm hold, and brought it a little forward, sufficient to reach the lower jaw; I could not, however, get it in the passage, from the front teeth lacerating my fingers. I then, with a little difficulty, passed a cord, with a slip knot, around it, and by these means, after some time, succeeded in bringing the head in its proper position, when little more assistance was required, the throes continuing all this time very powerful. I carefully removed the placenta, ordered a little warm gruel, and left her alone. Saw her the next morning—gave her an aperient. She was soon convalescent.

Remarks on the present State of Veterinary Affairs.

Before concluding this epistle, Messrs. Editors, may I claim your indulgence to offer a few remarks upon the existing state of affairs in the profession? I have viewed with extreme regret, in common with the majority of our members, for some time past, the opposition that has been offered to our general interests by a party who should have been, I presume, the last to have taken up arms, except in our defence; nor could they have done so, had they

been actuated by correct principles of honour and a strict sense of justice. Holding, as they do, the high position of teachers in an establishment to which we ought to be enabled to look with pride and satisfaction in a country like our own, they should have been prepared to make some little concession, as far as their private feelings and pecuniary interests are concerned (had they been required), and have considered that the interests of the many should never be sacrificed for the benefit of the few. I need scarcely point out the fallacy of their supposition, that the Apprenticeship clause, in our recently obtained Charter, for instance, will operate to reduce the number of their students: it may possibly for a time, but what will be the ultimate effects? The public is not so short-sighted, but it will see, by these means, that, if possible, more efficient men will be sent out into the country to undertake the all-important duties that devolve upon veterinary surgeons, and thereby tend to its benefit, and will appreciate the motives:—this will operate as a stimulus to young men of capital and education to embark in the profession, and the numbers will increase instead of diminishing. But I am fearful there is a something else. Has not the love of power a too firm hold of these gentlemen? They have held the reins of government so long, that it may not be so pleasant to give them up; but, then, they have not been wrested from them by unlawful means. Now, would it not be better for them to throw aside their weapons of warfare, and co-operate with the other members of the profession for its general welfare, and increase their efforts to educate their pupils, so as to keep pace with other scientific pursuits, which we know are rapidly progressing? By so doing they would win back that respect and confidence which they have forfeited; but, if they continue the present agitation, it will avail them nothing. We cannot fall back again under an old and bad system of government: in these days we must go forward.

To the Members of the Council I beg to offer my most unfeigned and heartfelt thanks for the untiring zeal, energy, and assiduity, which they have displayed in carrying out their views for the benefit of the profession. I feel I should be wanting in gratitude to them if I did not embrace this opportunity of expressing my sentiments; for I am convinced, if any of our members are more indebted to them than others, it is those who, like myself, are young men, and far removed, as it were, from the great centre of circulation. Who can view their actions but, through your Journal, as a person at a distance looks upon a battle field through a telescope? If they are firm, Messrs. Editors—and we can doubt them not—they must conquer, for they are struggling under the banner "*veritas et justitia*." Although the enemy has an army of reserve that does not legitimately belong to their ranks, let them not be dispirited: if they require another banner to fight under, let it be "*nil desper-*

andum ;" and they will ere long find that the very army of reserve of the enemy will come to see the justice of the good cause, and desert from their ranks, when there will be soon a cessation of hostilities; which is "a consummation most devoutly to be wished."

In conclusion, I beg to apologise for taking up so much space in your valuable Journal; and believe me to be, Gentlemen,

Nov. 12, 1846. Your's very truly.

MR. MAYHEW TO THE EDITORS OF "THE VETERINARIAN."

Gentlemen,—Mr. HAYCOCK's remarks in your last number, though severe, were just. A case was fairly made out, and the charge based upon it directly brought home. I fear, however, the circumstance to which Mr. Haycock has so pungently alluded is not a solitary instance, but rather the illustration of a system which gives a peculiar character to the work pretending to emanate from a learned society, and to be exclusively devoted to the encouragement of science. A publication originating from such a source, for such a purpose, conducted by the teachers of a College, and ostensibly sanctioned by members of the profession, comes before the public with an appearance of authority; and, if it were too much to expect that every article it contained should be characterised by genius, at least we might anticipate that every statement it advanced would be in accordance with fact. No one would imagine that a journal supported by the funds of an Association was converted into a medium for deceit to play its antic in, or suppose that the sacred pages of a learned record were subservient to the dictates of ————. I will not conclude the sentence.

On the wrapper of *The Record,* the names of Messrs. Spooner and Simonds inform the world who are the editors of the work. The generality of mankind may see nothing particular in the announcement; but to those persons who are aware that neither of the gentlemen are known as authors, or have been remarkable for their literary tastes, it may seem somewhat strange, and there may naturally exist a desire to know how and where Messrs. Spooner and Simonds learnt the mysteries of a craft over which, without previous training or customary apprenticeship, they are seen to preside. You well know how arduous the duties of an editor are—how multifarious are the qualifications such an office demands, and how varied should be the information of him who fitly discharges it. Genius, however, is not limited by probabilities. The fisherman in three days became a sovereign, and in less time the Professors may have become Editors; yet, as in every title some responsibility is implied, before a man accepts the one, he

should be conscious of his ability to discharge the other, or the word which ought to confer distinction may expose to ridicule.

I would not assert that the gentlemen to whom I have alluded do not enjoy more than sufficient genius to grace a far higher station than that in which they are placed: I will advance no opinion on such a point. I rather seek to know how the parties immediately concerned feel upon the matter; and as I cannot learn that, when the Editorship was undertaken, it was in consequence of any urgent solicitation from the members of the Association, or any deliberate appointment by the members of its Council, I must conclude that Messrs. Spooner and Simonds assumed the office because they were urged to do so by an impulsive conviction of their superiority and fitness. If they were so instigated, the act was generous; and if their convictions were right, perhaps the deed was wise. From kindly feeling, no doubt, they sacrificed their personal pride, or else they would have waited till their pre-eminence was acknowledged, and the post they were so well qualified to fill was forced upon their acceptance by the universal voice.

It is possible, however, for men to mistake themselves. Conceit has a microscopic vision, and a large allowance should be made for its optical delusiveness. A little hesitation had been well—a few moments spent in self-examination had not been thrown away; for, as the title of Editor lends some dignity to the name after which it is appended, so it is just possible a very envious man might suspect an ambitious individual having the power, had unwarrantably assumed the honour, for the purpose of puffing himself into social notoriety and professional repute. Did the President of a scientific association use his influence to prostitute the credit of the body over which he presided for personal ends, or the Treasurer sanction the appropriation of the funds in the hope of gaining a false repute, the case would, indeed, be bad. It is not enough that persons holding such offices are not accused; they should be beyond the reach of accusation. The influence attached to public societies is sacred to its uses. A false representation put forth under such a cover becomes an actual crime, a positive imposition and a moral enormity. In such a case it is no justification to appeal to the notorious custom of the booksellers: a public society cannot regulate its conduct by such a standard, but is to be judged by higher principles than those of trade.

Let me not, however, be understood to assert any thing concerning the individual merits of Mr. Spooner or Mr. Simonds: I have made only a few general observations, on the justness of which I think all will agree. Those gentlemen are announced to be conductors of the press, and, considering whence the announcement issues, few will question the fact. I only wonder at the suddenness of their elevation. I stare at the mental activity which gains the top at a single bound. However, being there, they invite at-

tention, and I become the more curious to learn the process by which they gained the height. All they have done now grows subject matter for most interesting speculation; but I have no desire to pry, however inquisitive may be my feeling. Their public acts I will alone deal with, and with those in a spirit of fairness.

In "*The Record*" I cannot fully judge of their genius. Mr. Morton is associated with them, and he may cramp their energies. I wish to see them alone, exercising in unshackled freedom their literary spirits. Few and far between are the opportunities of delight which, in this particular, they afford the world. They do, however, sometimes display their strength, and, though the indulgence is always brief, yet it is sufficient to indicate the giant dimensions of their souls. I will appeal to a recent instance for the edification of your readers and the wonder of mankind.

On January the first, eighteen hundred and forty-five, Messrs. Spooner and Simonds first appeared as Editors. On the sixteenth of July in the same year, or more than six months after they had been distinguished from the herd of ordinary scribes, the two gentlemen exhibited as joint authors. The occasion, it is true, was a poor one, quite unworthy of their talent; but your true genius exults in creating as well as delights in overcoming difficulties: it is not to be fettered by vulgar rules.

In the eighteenth volume of THE VETERINARIAN, page four hundred and fifteen, will be found an extract from the *Racing Sheet Calendar*, in which I read that the Jockey Club resolved, "That Mr. Field, with such members of the Veterinary College as shall be recommended, be requested to examine the mouth of the Queen of Cyprus, and to report their opinions to the Stewards of the Jockey Club."

This gave opportunity for contrast and display, and the opportunity seems not to have been neglected. The certificates appear at the page I have referred to, and, when looking at them, the first thing that attracts attention is the difference of length which they exhibit. Mr. Field's barely occupies four lines: it is a common business-like document, and deserves no further remark than that it is equal to its purpose. The composition of the Professors fills nearly three times the space, for great minds, like huge bodies, require and must have room. Besides, the Professors are not business-like; they have station to uphold, reputation to maintain, and fame to enlarge. They are two Editors conjoined upon a single page; their pens have power, and their heads ache with thoughts that will have utterance. No ordinary authors writing by the column are set to work, but elevated minds have now to speak; so, broken sentences and mighty words become but casual things.

The officers of the Royal Veterinary College begin their joint effusion thus:—

"We hereby certify that, by the direction of the Stewards of the Jockey Club, we have this day examined, with reference to her age, a bay thorough-bred mare, said to be named the Queen of Cyprus, and shewn to us by Mr. Smith, at his stables, Great George-street, Chelsea;"

Here there is a semicolon, allowing the reader to draw breath, and I will take advantage of this to make a few remarks. The Professors, it will at once be seen, are determinate and resolute. They were *requested* to do a certain thing, but they do not like such familiarity; they will be directed, and, as officers, only proceed upon command. When they even have made a start they still support their characters, for they will go to work only according to their own judgments. Great men are not to be dictated to. The Jockey Club *requested* that the mouth of the Queen of Cyprus should be examined; but Messrs. Spooner and Simonds commence by examining the animal herself with reference to her age, and, as females are seldom communicative on such a topic, it is probable they did not obtain any satisfactory reply to their inquiries. Disappointed, however, they are not so much confused as to lose their caution. They will certify only that a horse is *said* to be named the Queen of Cyprus; and when we remember what great political convulsion has arisen out of the imprudent recognition of pretenders, the care herein displayed cannot be too much admired. The members of the Jockey Club, in a thoughtless moment, spoke of the animal as majesty itself; and the Professors, in a mild, yet pointed and dignified manner, intimate their opinion of such conduct. This view of the subject almost mounts into the sublime, and teaches a fine lesson to mankind. The matter, however, may be regarded in another light, and perhaps be equally as instructive. The Professors know that all who are connected with horses must be rogues, and on that account, perhaps, refuse to accept the word of the Jockey Club itself. Prudence regulates their actions. Probably it had been quite as prudent on their part, if, when writing this important document, the Professors had remembered that there were other rogues in this world besides such as were contaminated by associating with horses. The lawyers are not proverbial for honesty; and it would not have injured the composition if the word thorough-bred had been omitted, and the name of the important personage who played the part of master of the ceremonies on the occasion had been expunged. Certain persons may have a power of recognising a thorough-bred animal the instant they see it; but some "cock-tails" are so close in their appearance, that an ordinary judge might be deceived. The certifiers, of course, knew what they were about, and did not, because commanded or requested to take note of a horse by the Jockey Club, hastily conclude it was of pure blood; for, could the rogues of Westminster

Hall shew the animal's tail was a little raised, or that *the* Mr. Smith who owned the stables was not at Chelsea on the particular day, then I fear the valuable autographs of the Professors would have been dashed off to no purpose.

"And having carefully investigated her teeth, and made such general observations as deemed by us advisable, we are decided and unanimous in opinion that the said mare is three years off—"

I must not proceed too fast. There is a power and grandeur exhibited in this portion of the sentence that commands more than a passing comment. Simple Mr. Field examined the mouth, as he was requested to do. The Professors will be directed, and when directed they will do only just as they please. They carefully investigate her teeth. The signs of age lie upon the surface, and at those only the common practitioner looks. Learned teachers discard the superficial; they search into or investigate before they speak. To be sure, they were not requested so to do; but that does not signify: they investigated the animal's teeth upon their own authority; their signatures assure us of the fact. I do not mean to dispute their words thus formally pledged; only I confess my ignorance is so great, that I cannot conceive how they accomplished the labour. To roughly investigate a single tooth after it has been removed from the jaw, experience teaches me is not a very easy or a very brief task; but to carefully investigate thirty-six teeth retained in the head of a living animal, is certainly an accomplishment to which ordinary practitioners would be unequal, and, unless the fact were formally stated, the possibility of effecting such a work might be reasonably questioned. Nevertheless, it was done, or the certificate is of no value, for a single mis-statement would destroy its worth; and, the extraordinary process being ended, they proceed to make "such general observations as deemed by us [the Professors] advisable." What the nature of the observations was is not stated; why they were made, it is not set down. The request of the Jockey Club said nothing about general observations; it merely alluded to the mouth, and the mouth is the place which the Professors are determined not to mention. Not a word is said about it. A particular circumstance is all the Stewards want to be noticed; but the gentlemen requested to give their opinions will not be confined to particulars. Generalities are more to the taste of Messrs. Spooner and Simonds, and accordingly they set about observing, though I trust they are not usually unobservant.

The observations, however, though general when made, seem to have been of a very special description, for it is recorded that these observations deemed, or thought, or concluded. I never heard of observations doing such a thing before; and, perhaps, the Professors meant that they made such general observations as *were*

deemed advisable. I advance this suggestion with much hesitation, for the language of such men is not to be corrected by a hasty hand. When two Editors are employed to write a single sentence, it cannot be supposed that the obvious distinction between the active and the passive could be unknown. The purpose of the original as it stands, however, is not quite clear; but this is redeemed by the towering height of that which immediately succeeds: "We are decided and unanimous in opinion" is very grand. Two ordinary men, who were associated together in their daily duties, would have expressed their opinions, and left the world to imagine that when they spoke positively they were decided, or, when they came to the same conclusion, that they were of one mind. Two strangers might possibly have stated that they agreed on such or such a judgment. The Professors teach in the same school, practise in the same building, live in houses in the same street; but, when they chance to accord, it seems to be no ordinary event. The fact is announced in words which teem with wonder, and read like an exclamation of surprise,—"We are decided and unanimous." How powerful is the decision, especially when capped by the awful unanimity of two! The expression mounts into the regions of poetry, and lives with the sublime. Two were decided and unanimous, or can it be that one was decided and the other was unanimous? It is not impossible such may have been the meaning intended: Mr. Spooner, perhaps, was decided, and Mr. Simonds was unanimous. A man unanimous with himself is not quite ridiculous, and the originality of such a mode of expression is remarkably fine. A person is not exactly himself; he and himself, on the contrary, are quite distinct, for some people talk to themselves, others lose themselves at times, and many individuals, when they catch themselves sleeping, rouse themselves up: consequently a man may agree with himself just as well as feel displeased with himself, which is not unusual. Perfect agreement is no more than unanimity, and, if Mr. Simonds was quite self-satisfied, he only used a strong word when he announced himself as unanimous. There is a style and beauty in the expression which deserves to be considered liberally. I do not cavil at the language; I only regret that the occasion was not more worthy of its adornment, for "that the said mare is three years off," is commonplace and poor—mean, and matter of fact. The animal should have been spoken of as Arabia's child or Britain's boast, in order to support the strain; and, instead of three years off, she ought to have been three hundred miles off. Let that be as it may, however, the fact is decided: only, when Professors come to a decision, it is not like to that of other men, for it is not final—it has a reservation and an explanation appended, which, of course, weakens its effect. So

much as has been quoted should have been the whole, for a climax had been attained, the vigour of which ought to have been preserved.

"— That is to say, according to the period from whence, by common consent, the ages of all thorough-bred horses are dated, the said mare commenced her fourth year on the 1st of Jan. 1845.

"CHARLES SPOONER, *Deputy Prof.*
JAS. B. SIMONDS, *Assist. Prof.*"

The above is a blemish. The opinion which was pronounced, to be decided and unanimous, should have required no explanation. Moreover, 'That is to say,' is vulgar, and the people who use such a form of words have always nothing to express. When a man begins 'that is to say,' prudent people always get away from his infliction, knowing that a hopeless state of mental confusion has been declared. Besides, the Professors were not saying, but writing; and the grandeur of the preceding passage unfits the reader for a descent thus abrupt into prosaic colloquy. Again; the dictionaries define such a combination of words as "*from* whence" to be "a vicious mode of speech, and a barbarism." Then, a spirit of illiberality pervades the passage. The Professors may not admire the Jockey Club, and they have pointedly intimated their opinions of that body of noblemen and gentlemen where the evidence, as to the name of the mare, is hinted to be doubtful; yet there was no occasion to deny the truth in order to display a rancorous feeling. Horses date from the first of January by a special law of the Club, not by 'common consent;' and as ignorance cannot be supposed to belong to the Deputy or the Assistant, the mis-statement bears an ugly aspect. It is the more ugly, inasmuch as it is needlessly introduced. The Jockey Club, surely, did not want to be informed on the point. No opinion on that respect was requested, and, if *all* thorough-bred horses date from a particular day, of course the "bay thorough-bred mare" was not excluded: no purpose was, therefore, gained by the addition. Some hazard, however, was braved. By this law, a horse born on the last day of one year rates as a yearling on the first day of the next. I know of no sign or token that would warn the judgment if such an event had taken place; but, had it been the case in the instance to which I am now referring, the certificate would be at once upset. The teeth denote the positive and do not indicate the arbitrary age of an animal. To the actual age, therefore, prudence would have confined the document; and with the arbitrary regulations of mankind, the veterinary surgeon has, and should pretend to have, no concern.

Having at so great a length commented upon the remarkable

effusion of two learned authors, I will in justice, and for the sake of contrast, quote the humble and unpretending certificate signed by Mr. Field :—

"This is to certify, that I have this day, by the request of the Stewards of the Jockey Club, examined at Smith's livery stables, Chelsea, a bay mare, called the Queen of Cyprus, and am of opinion that the said mare is three-years-old off.

"WILLIAM FIELD, *Vet. Surgeon.*"

In a court of law, doubtless, this last would prove the better instrument, and on that account certain unpoetical minds may prefer it to the loftier composition of the Editors. But it does not amuse the fancy—it does not fire the imagination: it says no more than is necessary; and, if it is entirely devoid of the blemishes which can be detected in the Professors' sublime outpourings, it also makes no pretence to be regarded as a literary and poetical effusion. It bears no mark of effort, whereas the joint essay shews the labour which was bestowed upon it. The Deputy and Assistant were not pressed for time, nor taken by surprise; of course, they had notice-room for reflection on what they were about to do, and opportunity for consideration after they had done. Then, two heads were united, each to assist and to advise the other; and they possessed even the power of consulting other parties, had it been imagined further help was needed. The whole they had to write was but a simple sentence, the matter of which was not long, and the construction of which could not be new.

At the Royal Veterinary College, three parts of the active practice consists of the examination of horses; and, therefore, the writing of a certificate must be to the Professors an every-day affair. Custom, moreover, has established a kind of formula for such instruments, and horse-dealers who have no literary ambition can write them off:—a boy at a charity school could not have been set an easier task. If, however, the Professors of a College are unequal to such an effort—if they cannot write a single sentence correctly—what pretence can they advance to be esteemed Editors in literature and Judges in science? If in a single common-place sentence of ten lines can be discovered false English and bad grammar—words misused and facts mis-stated—vulgarity and barbarism—needless circumstances inserted and the one thing desired omitted—if, when straining to write strongly, they only indite nonsense, and, meaning to be plain, only grow confused—if, in fact, within the compass of a single sentence, they can accumulate the errors which would disgrace a volume, how, I ask, was it they were chosen to conduct a public journal? If they were not elected to, but assumed the position which they occupy, then the affair wears, indeed, a me-

lancholy aspect. I would not accuse either of the gentlemen of abusing the confidence reposed in them by the members of the Veterinary Medical Association, or of using the positions which they occupy to impose upon the public; but, if they are Editors, I ask them how they became so, or what are their qualifications?

I remain, Gentlemen,
Your obedient servant,
EDW. MAYHEW.

16, Spring-street, Westbourne-terrace,
Nov. 12th, 1846.

A CASE OF TRAUMATIC TETANUS IN THE HORSE SUCCESSFULLY TREATED.

By R. HARVEY, *Assistant to Mr. Statham, V.S., Derby.*

THE patient was a half-bred Arab; and, for his advanced age (which was upwards of twenty), possessed great courage, nervousness, and sensibility.

The disease in this instance was brought on by a lesion of the knee, which the owner had endeavoured to heal by stimulating applications; thus producing great inflammation, and an unhealthy discharge from the wound.

Oct. 17*th.*—Mr. Statham was first called in, when he found the animal sipping his bran mash—his jaws being only slightly moveable—ears erect—tail straight out—the muscles of the whole body particularly hard and rigid—little or no deviation in his pulse from the natural standard; his eyes presented a ghastly appearance, from the membrana nictitans protruding over the greater part of the cornea. Our infirmary not being far off, he was with a little difficulty removed thither, and placed in a capacious loose box, where we bled him to the amount of about six quarts, administered an aloetic purgative, clystered, freely cauterized the wound, and blistered throughout the whole course of the spine.

18*th.*—The tetanic symptoms had not increased; in fact, the patient appeared much the same as on the preceding evening. Threw up laxative enemas, afterwards allowing him to remain as quiet as possible. In the course of the day, he ate a bran mash and drank some gruel.

19*th.*—Bowels were not yet relaxed, and the muscles retained their hardness; yet he has a desire for food. Give him gtt. xx of ol. croton. tiglii, with some solution of aloes.

20*th*.—The draught given the preceding day had a most desirable effect, the animal appearing in every respect much better. At night a sedative ball was given, and ordered to be repeated every four hours.

21*st*.—He does not appear so well after the sedatives: let them be discontinued, and give him gtt. x more of ol. croton. tiglii.

22*d*.—Since yesterday he has much improved; eats a little hay. The haw is not so much protruded, and he appears better in every respect. Give febrifuge medicine in his gruel twice a-day.

Sufficient to say that, from this time to the end of the month, he has continued improving, and is now perfectly restored to his usual state of health.

With regard to the above treatment, I beg more particularly to direct attention to the great improvement observed on each occasion after the administration of the croton oil.

CARBON SUGGESTED AS A REMEDY FOR MURRAIN, &c.

By T. PARKIN, *M.R.C.S., London, &c. &c.*

THE prevalence of a severe murrain among cattle induces me to address you on the present occasion, with the view of pointing out a remedy that, I have reason to believe, may be found useful, and, if resorted to in time, likely to prevent its present fatal result. That remedy is, CARBON, in its gaseous and other forms.

My reason for believing that this remedy will be beneficial is, simply because I infer that the cause productive of the epidemic among the cattle is the same as that which has produced its co-temporary among men,—the epidemic cholera. Now it has been my endeavour to shew, in the work which I have the pleasure to forward, that carbonic acid gas is an unfailing remedy for this modern scourge; with what success I must leave you, Messrs. Editors, and others, to determine. We will, however, presume that my deductions in this respect are wrong, and that the murrain amongst the cattle is not the product of the same cause as the epidemic cholera. But then we must infer that the disease is caused by some deleterious agent extricated from the soil; and, as we know of only one common to all latitudes, and capable of producing disease under every variety of circumstance, viz. that designated malaria, we ought, it would seem, then to conclude that to this particular poison must be attributed the effects now alluded to. Granting

this, I should still draw the same inference; for it has been no less my endeavour to shew that the different diseases produced by this invisible but well known agent are amenable to the same treatment. This will be evident by a reference to the work which accompanies the preceding, and which I have also forwarded for your perusal and consideration: I will therefore take it for granted that this remedy, if resorted to, would be beneficial in the treatment of disease in the brute as well as in the human subject.

There is, however, a difference, and it is not only a striking one, but, at the same time, a material difference, in the effects which are produced by the operation of these deleterious agents in men and animals. This is the fact, that in the former the poison is more apt to exert its deleterious influence on the abdominal organs and the skin; while, in the latter, the thoracic organs appear to be more frequently attacked. The variation may, in all probability, be ascribed to the circumstance that animals, from their position, imbibe the poison, on its extrication from the soil, in a state of greater concentration than man*. It would, therefore, be more likely to produce an immediate effect on the respiratory organs on its passage into the system, than when imbibed more slowly, and in a less concentrated state; for the effects which then ensue are more generally the result of the gradual absorption of the poison, and its accumulation in the circulating fluid. Be this as it may, it necessarily causes not only a difference in the effects, but also a difference in the treatment; for the introduction of remedies into the stomach will not, perhaps, be so beneficial in diseases of the chest as in those of the abdominal organs. This, therefore, is a disadvantage in the treatment of the diseases under consideration, unless we could produce a more decided effect by its introduction into the system by the windpipe. On this point I am not prepared to give a decided answer; for although I have frequently introduced the remedy into the system in man by inspiration, I have never yet tried the experiment with animals, and am therefore ignorant of its chemical as well as therapeutic effects when taken into the lungs. As, however, I may shortly have an opportunity of putting this experiment to the test of experience, and as you, Messrs. Editors, and your numerous readers—at least the professional part of them—will be capable of drawing conclusions on the subject, I shall merely add that the suggestion now thrown out is, I think, worthy a trial. In the mean time we may resort to the administration of the remedy by the mouth, the same as in the human subject.

As the directions for the administration of the different forms of carbon have been fully given in the works which accompany this

* The circumstance of animals respiring—some exclusively, others much more than man—through their nose, may also have its influence.—Ed. Vet.

letter, I think it unnecessary to add them here: I will leave it to you, Messrs. Editors, to extract them, or such portion of them, as you may deem advisable or requisite. There are, however, a few remarks which it may be advisable for me to make with respect to the variation in the mode of administering the gas. In the first place, if a horn is used, it should be open at both ends, and the mixture of acid and soda may then be given separately, the solution of soda being poured into the horn first. If, however, a bladder with a long pipe were employed, the solutions might then be mixed together, in the manner pointed out for the administration of the gas by the anus, in dysenteric attacks, at page 29 of my work. In the next place, as the lungs are the organs chiefly attacked, there would be little benefit derived from the administration of carbon in its ordinary form, that of charcoal, for the effect of this remedy is chiefly confined to the *primæ viæ*. Not so, however, to another form of carbon—naphtha—which I have no doubt would be found very beneficial, and possibly the best form for administering the remedy in, as it appears to be rapidly absorbed into the circulating mass, and produces a sensible effect on the whole of the secreting surfaces, while also we have some accounts of its favourable effects in similar affections in man. For the same reason we might resort to common oil, which contains a large proportion of carbon; as, notwithstanding that I am opposed to the administration of this form of carbon in cholera, on account of its emetic and purgative effect, the case is altered when no irritability and relaxation exist in the abdominal organs, and when, on the contrary, we are obliged to resort to aperients, as well as other remedies.

I would also wish to add, that a remedy like this must be had recourse to at the commencement of the attack, and before disorganization has taken place in the lungs or other textures. After this, a different treatment will be required to remedy the effects that have ensued from the injurious operation of an extraneous substance in the system; the preceding agents being only intended to remove the cause, or, in other words, neutralize the poison.

In conclusion, I will only add, that, as my own avocations lead me into other pursuits—analogous, it is true, but still, to a certain extent, different—and as my opportunities in London will necessarily be limited, I trust that those of your readers who may be induced to adopt the treatment now proposed will make the result public for the benefit and satisfaction of others. I cannot, however, close this letter without stating my conviction that this treatment, or rather this single remedy, would be not only applicable, but be a certain cure for two diseases hitherto found not only untractable, but almost beyond the reach of art;—I mean the *glanders* in horses and the *rot* in sheep. On a future occasion I hope to

have something more than mere opinion to offer on this particular point; but I now throw out the suggestion for the consideration of your readers.

*** With the above paper Mr. Parkins has sent us the works to which in it he refers: one, published in 1836, "On the Uses of Carbonic Acid Gas in the Diseases of Tropical Climates;" the other, published in 1846, "On the Antidotal Treatment of the Epidemic Cholera," the antidote still being "carbon." The accounts given in these pamphlets of cholera—and of cholera in its worst form, *cholera asphyxia*—also of the premonitory diarrhœa, and of obstinate or malignant dysentery, and the success attendant on the exhibition of carbonic acid gas in these terribly fatal diseases in man, are not only of a nature to entice the veterinarian to make trial of a similar line of practice in his treatment of the destructive epidemics which have of late proved so prevalent among our cattle; but at the same time, so far as analogy can be appealed to, are such as to afford him, *cæteris paribus*, some prospects of success. We do not apprehend carbon to be a remedy suited to the neutralization of the virus of glanders and farcy; at the same time, we are not going to prejudge the question. On this subject we shall be happy to hear from Mr. Parkins again.—Ed. Vet.

INTESTINAL ANASARCA, WITH ASCITES.

By W. A. Cartwright, *M.R.C.V.S., Whitchurch, Salop.*

On the 29th July, 1846, a large cart horse was sent to me, belonging to a farmer a few miles from here, that had been occasionally subject to bleed slightly from the right nostril for some short time past; and on the 25th inst. he was very much swelled underneath the throat and jaws, quite full up, and of an œdematous character; but there was no sore throat nor any other symptom of illness. By fomentations this left him.

Symptoms.—There is a slight coagulum of blood in the right nostril, but I am told none ever issues from the other: never coughs. I cannot detect any disease in the nostril or windpipe. As far as his general appearance goes, there seems little amiss with him, and he is in good condition, sleek in his coat, and feeds well. Gave ʒiv of aloes, and took about five quarts of blood from

him, which was nearly all fibrinous, there not being above a pint of red particles in it. To have rest and mashes.

31*st.*—The wagoner called on me to-day, and had him in a cart, fetching a batch from the mill. I was told he began to purge on the morning after he had the medicine, and had continued to purge, and is purging now a little. His prepuce is now swelled a good deal, and pendulous: no symptoms of pain have been evinced. Insisted on his having rest and being taken care of: he feeds very well.

Aug. 1*st.*—He was again sent to me, and was thought not to be so well—does not purge—feeds tolerably—lies down at night—never seems to be in pain—sheath still getting larger, and there is now a large surface of the external part of the abdomen covered with an œdematous swelling; there is also a little between the fore legs. I took away five quarts more of blood; it was nearly all white buff, like fat. He is breathing freely, and shews no other bad symptom. Merely gave a diuretic ball; ordered gentle exercise and moderate diet.

2*d.*—*Symptoms:* A little duller—stands up—has not been, nor is now, in any pain—sheath and integuments underneath the abdomen, and between the fore legs, very œdematous—bowels lax and right—urinates well—pulse small and quick—respiration natural—coat sleek. I punctured the sheath and abdomen in several places with the lancet, and there issued a good deal of serum thereout. Ordered the sheath to be well fomented. Gave a diuretic combined with ʒiss aloes. I do not like his ways.

3*d.*—Sent for this morning to him, in consequence of his not being thought to be so well, and of his swellings being larger.

Symptoms. 8 A.M.—Does not feed so well. The prepuce is quite as large and pendulous, but the œdema of the abdomen is less. I am told that much serum has escaped from the punctures, and blood freely from one of them, the orifice of which has been pinned up. He certainly is worse—will not eat—membranes of eyelids and nostrils quite pallid—sighs occasionally, and wanders about the stable. In no apparent pain. I introduced my arm up the rectum, and drew out some pulpy fæces. No purging—pulse not to be felt at the jaw; at the chest it was about 70 or 80. I fancy there is effusion into the abdomen; for, on listening to the side of the thorax and abdomen, there is a regurgitation towards the former. Gave a tonic.

10 A.M.—Lifts his legs occasionally towards his belly—never lies down—drank some oatmeal and water—does not look towards his sides—ears getting colder—legs and body tolerably warm. Every now and then a sort of fit comes on him, when his respiration be-

comes much increased and laboured. Pulse quickened—trembles—totters—wanders about, and lifts his head up, and I expect him every moment to fall down; but in a few minutes all subsides, and he appears himself again.

11 A.M.—About the same. Give opii et camph. āā ʒss, as his bowels rumble much.

2 P.M.—From last date to the present he gradually got worse, and at this hour he died. The fits continued the same every half hour or so; but he never lay down until a short time before he died.

Examination.—In consequence of tremendous and continuous rain, he was not examined until seven o'clock the next morning. The abdomen contained about ten or twelve gallons of liquid of a similar colour to light port wine. I could only discover a few shreds of coagulated blood in the abdomen: about the incised spermatic cords there was nearly an ounce of coagulated blood, but whence it had escaped I could not discover. There was a quantity of serum in the cellular tissue surrounding the kidneys, though they appeared sound. The whole of the peritoneum covering the intestines and parietes of the abdomen (except the diaphragm) was not the least inflamed, but perfectly natural. The diaphragm was considerably inflamed and covered with flocculi. The liver and spleen had scarcely any blood in them, and the former was of a clayey colour; the latter was small and of a blueish colour. Stomach beautifully sound. Lungs tender, and little blood in them. Heart sound, and scarcely any blood in its cavities. There was a little serous effusion into the thorax and pericardium, but I am sorry I cannot say whether it had the tinge of blood or not, like that in the abdomen. The small intestines were but little thickened or diseased. On looking externally at the large intestines, there appeared nothing the matter with them; but on cutting them open, the cæcum and colon were throughout found seriously diseased; for between the mucous and muscular coats there was a vast quantity of serum extravasated within the cellular tissue, and in some places two inches thick. There was no effusion within the muscular coats, between them and the peritoneum, nor was there but little effusion underneath the mucous coat of the rectum. On taking a general view of the body, there appeared very little blood in its textures, it being quite pale, and as if he had been bled to death.

Observations. — At page 430 of this volume will be found a similar fatal case to the above one; and, as far as my practice has gone, such cases have been rare with me. In both of them the symptoms were very deceptive, and liable to mislead us in our treatment; indeed, there were no symptoms that, for several days, would lead us to believe that there was any thing serious

going on in the system, for each was in just nice working condition—sleek in their coats—tolerably lively—respiration natural—in no pain—and the appetite very fair; in short, at first there was nothing of much importance but the œdema underneath the jaw, and afterwards of the prepuce and abdomen. These cases, I think, clearly prove that serous effusion may take place in the abdomen and cellular tissue of the intestines to a great extent in a very short space of time, and that we ought to look with great suspicion upon cases of swelling of an œdematous character occuring first under the throat, and afterwards of the scrotum and subabdominal cellular tissue. I also consider that there is some difficulty in deciding, in these cases, upon the plan of treatment. One would think, from the buffy state of the blood and the absence of the usual symptoms of inflammation, that the depletive system was not required; yet, from the suddenness of the attack and the general healthy appearance of the animal, it would be required. This case also proves that there may be immense effusion of serum between the mucous and muscular coats of the intestines without the animal evincing any enteritic symptoms until a few hours previous to death.

MR. BARROWMAN'S LETTER TO MR. CHERRY*.

To the Editors of "The Veterinarian."

Gentlemen,—I HAVE read, with some degree of surprise, a letter from Mr. W. A. Cherry in your last (Sept.) number, and beg you will give insertion to the following observations on the latter part of it in regard to the special meetings of the Board of Examiners.

I am a relative of one of those who applied for a special examination (not one of the thrice rejected, which I have learned is not true, no student having offered himself for examination more than twice); and I considered it unfair that my relative, after having devoted himself to studies for an additional three months, should at the end of that time be refused a special examination, when he had done so only in consequence of being required to fill a situation in America, that refusal for a special examination not being accompanied by any reasons for its not being complied with; but I

* This letter—a reply to one from Mr. W. A. Cherry in our Number for September—reached us too late for insertion in our October Number, but ought, in justice to Mr. Barrowman—to whom we beg to apologize for the omission—to have appeared with Mr. Cherry's reply to it in our impression for November.—ED. VET.

am still more astonished now that I learn, by Mr. W. A. Cherry's letter, that there has been a special examination of two old students allowed at London; still more, that there is nothing mentioned in their case to shew the urgency of it—nay, on the contrary, as the one appears to have been a fifty and the other a sixteen years student, it appears strange that they could have not waited for three months (the regular quarterly meeting of the Board of Examiners at London). There is something in this very like favouritism; and, until I am shewn that there was some special necessity in their case more urgent than that of my relative, I must consider the Council to have shewn the grossest partiality. But this is not all: it seems to be the opinion of Mr. W. A. Cherry, that because the London College was in the habit of holding four examinations every year, and the Edinburgh College only one, this practice is to be continued; and that, to avoid this inconvenience, the only remedy is, for the students to make their election which of the two schools they choose to study at. I had always understood that the Charter had placed both the Schools on precisely the same footing; but if the Council are all of the same mind with Mr. W. A. Cherry, or if they do not repudiate his statements, it is high time, in my opinion, that each School should have its own separate charter.

I am,

Gentlemen,

Your most obedient servant,

JAMES BARROWMAN, V.S.

Kirkaldy, Sep. 21, 1846.

VETERINARY APPRENTICESHIP ADVOCATED.

By J. TOMBS, *M.R.C.V.S., Stratford-on-Avon.*

Gentlemen,—I AM induced again thus early to intrude upon your valuable pages to record my unqualified disapprobation of your opinions in reference to the apprenticeship clause as established by the Council of the Royal College of Veterinary Surgeons. You appear to think (according to the Leader of the last month's VETERINARIAN) that "one year" will be a sufficient length of time for a person destined for the veterinary profession to acquire practical knowledge previous to his becoming a pupil at the Veterinary College. I disagree with you for wishing to curtail the period of apprenticeship to so limited a period, for the following reasons:—First; suppose a young man is intended for

a general practitioner, how is it possible for him to get thoroughly acquainted with the diseases incidental to the parturient mare and cow, and their offspring, until they arrive at the age of two years, in the short space of twelve months? To illustrate my argument, it will not be necessary to say any thing about the diseases that occur to the mare and cow during pregnancy, as they are not numerous, but I will come at once to difficult cases of parturition. The presentation of the fœtus will be varied—the natural one is easily managed; but unnatural presentations call forth the energy, skill, tact, and perseverance of the practitioner, to successfully extract the fœtus. When the fœtus is ushered into the world alive, it is susceptible of many baffling and obstinate diseases before it arrives at the age of two years. Secondly; I will begin with some of the principal diseases the colt is liable to. Immediately after birth it has sometimes constipation of the bowels, at other times diarrhœa, both of which require medical treatment. It now and then voids its urine through an aperture in the umbilicus, in consequence of the non-contraction of the urachus. Prompt and mechanical agents must be resorted to, otherwise inflammation takes place in the surrounding parts, and terminates fatally. From three months old and upwards, it is liable to a painful disease of the joints, commonly called "wood evil;" to combat which the surgeon must exercise his best skill. From three months old to two years it is frequently attacked, particularly in marshy districts, with anasarca, or what is commonly called "water farcy:" the symptoms resemble œdema in the adult, but the disease differs materially from it in its nature, and must be treated differently. It is a long and exceedingly tiresome disease, and requires much time to be thoroughly understood. From one to two years old they are peculiarly liable to be ricked in the back, from suddenly slipping up when galloping and gamboling with others; these are generally protracted cases, and frequently come under the notice of the practitioner. Colts invariably are attacked with strangles from one to four years old; many cases must be actively and scientifically treated to insure the animal's future health. Inguinal, umbilical, and ventral hernia take place from birth to three years old; and it is almost impossible to reduce them but by an operation, although some disappear without treatment. The operations of castration and docking are usually performed at one year old. I omitted to state, before I began to relate a few of the most important diseases, &c. liable to colts, that mares, subsequently to parturition, have sometimes acute inflammation of the uterus or vagina; sometimes the symphysis pubis is injured, and sometimes the muscles of the haunch to all of which the attention of the veterinarian is directed. Thirdly; To further substantiate my ar-

gument, that one solitary year of instruction to the pupil who is intended for a general practitioner (which the majority are) is inadequate to obtain sufficient practical knowledge before entering either of the veterinary colleges, at least so far as the London one is concerned—probably they (the Professors) have a happier knack of managing things in the North—I will briefly mention two or three important diseases that cows are subject to at the time and after calving, likewise a disease or two that calves fall victims to. First; The cow, of course, is liable to distressing acts of parturition, the same as the mare—to hysteritis—to inflamed udder—to a retention of the placenta—to that strange malady, puerperal fever—and to inversion of the uterus. The former disease, to be cured, must be treated with a great deal of skill and judgment, and time alone will qualify the practitioner for the same; the latter, inversion of the uterus, will require the hands to be called into action as well as the head. A knowledge and method of returning the womb are not to be obtained in a short time. Secondly; When the calf is a few days old, it is often attacked with diarrhœa or scouring, which if not checked ends in dysentery and death. From three months old to two years it is very subject to that pest called murrain, or black-leg; and when three or four months old, to the hoose or husk, which proves a troublesome affair. I think that the diseases of neat cattle generally should be understood by pupils before entering the colleges.

And now, gentlemen, after perusing these recorded facts, I hope you will think with me, and the Council too, that *one* year's apprenticeship should not be conceded to the veterinary pupil; but that, at least, *two* years' apprenticeship or instruction should be adhered to in the by-laws of the Council: if not, I anticipate that many certificated practitioners will not reflect lustre on the institution whence they emanated.

I am,

Gentlemen,

Your's respectfully.

Nov. 18th, 1846.

AN OMISSION IN THE APPRENTICESHIP BY-LAW, WITH A SUGGESTION FOR ITS AMENDMENT.

By Wm. Clements, *Liverpool.*

In perusing your Journal of last month, I find it contains two communications upon the subject of the apprenticeship clause in "the by-laws" of the chartered body. I am glad to see this, for it shews that, at least, there are some in the profession who take an interest in the Council. I should consider I was taking too

great a liberty in presuming to suggest an improvement in the by-law, but that I am one of those persons whom the by-law affects. Let it not be thought, however, that I am one of those who would abolish it; on the contrary, I consider that it will be the means of placing the profession in that position in society which it deserves: nevertheless, I think that the Council committed a great oversight when it framed that law, and this is, that they made no provision for persons who might have been bound apprentices before the law was framed to persons *not belonging* to the "body corporate." The better to illustrate my meaning, I will lay before you my case, and I doubt not that many more could be found who could "tell the same tale of sorrow."

I was bound in the year 1842, for five years, to a person not a graduate of the College I was at the time fifteen years of age. You will at once perceive the situation in which I am placed. I cannot go before the Board of Examiners before the year 1848, for the reason that I shall not be twenty-one; and I cannot go afterwards, because I have not served an apprenticeship of three years with some member of the College. Now, had they formed the law so that it would only affect those who bound themselves to persons not graduates of the College *after* the year 1845—which year it was, I believe, the law was passed—it could only operate on those who were foolish enough to run in the teeth of it. I know there never was a benefit conferred upon the public at large but what it injured a few, in proof of which I might mention railways, &c.

Some have recommended that the Council should substitute for the law now in use, one that would admit those bound to non-graduates to study three years at college, instead of two. Now, I need only point out the object which, I believe, the Council had in view in framing this law, to shew the error of such an opinion. This was to erase from the profession that stigma of ignorance with which it has been branded; and, surely, the acknowledging of the empiric and quack as being fit persons to inculcate the principles of medicine into the youth destined to practise the veterinary art, is not the way to place it upon that footing of respectability which it deserves. I do not mean to say that a man following the veterinary art, and not being a graduate of the College, cannot be respectable; on the contrary, I know some very respectable and well-educated men who are not graduates. Taking them as a body, however, they are wanting both in respectability and education.

I will conclude by saying, that, if the Council would alter the by-law in the manner I have suggested, it would meet with the approbation of all.

I remain, respectfully, &c.

9, Moss-street, Liverpool.

CASE OF OPERATION FOR SCROTAL ENTEROCELE.

By Thos. Twiston Davies, *M.R.C.V.S.*

The subject of this case was a two-year old stallion having an enormous congenital reducible enterocele. The scrotum was distended to the size of a man's head, or rather larger. On the 5th of last month I commenced preparing him for the operation, by restricting his diet to green meat and bran mashes, and, having by this means superinduced a lax state of the bowels, on the 7th I had him cast for the operation, having kept him for the previous fourteen hours without any food. The operation, *à testicule couvert*, was performed successfully on the left testicle; but, upon very minute examination, I found that the other had not descended within the scrotum, and, consequently, I was obliged to release him, deeming it prudent to defer any further operation until the other testicle had descended, which I expected it to do in the next spring. All went on favourably until the 22d, when I first observed a slight stiffness in the off hind leg, and a slightly painful enlargement of the scrotum, principally on the right side. The enlargement and tenderness continued to increase daily; and, fearing strangulation might take place, I reduced the hernia by the taxis. No symptom of strangulation supervening, the scrotum appearing tense, shining, and exuding a serous fluid, and his pulse being 60, I concluded it to be erysipelas of the scrotum, for which I treated him by bleeding, cold lotion to the scrotum, and the exhibition of the following balls night and morning: R. aloes BB ʒiss, ant. tart. ʒj, hyd. chlorid. ʒj, ol. palmæ q. s., ut fiat bolus. On the 26th, I fancied a slight improvement: however, on the 29th at 9 o'clock P.M., abdominal pains suddenly came on, which I attributed to the effect of the balls. By 3 o'clock A.M. 30th, all hope had fled, and he died in two hours afterwards.

Post-mortem appearances.—On opening the scrotum, about three quarts of serum flowed out, having a layer of pus from the surface of the peritoneum. Intense inflammation in the peritoneum, with a large patch of mortification, including the tunica vaginalis, testis, and dartos muscle of the right side of the scrotum. Inflammation in the peritoneum of the abdomen, with patches of inflammation in the stomach and intestines. The other viscera were healthy. Intestines within abdomen.

REMARKS ON THE EFFECTS OF MERCURY.

By the same.

In all idiopathic and specific fevers, it is my invariable practice to bring the system under the influence of mercury, by the exhibition of calomel or hydr. cum creta, in small doses frequently repeated; and I always date my patients' convalescence from the time that the influence of the mercury becomes apparent. Of course, any local mischief that may be present is to be combated according to circumstances. It is a well known fact, that if an attack of measles supervenes during the progress of smallpox, or *vice versâ*, the one gives way to the other. Now, I firmly believe that in a somewhat similar way mercury removes fevers. Does mercury produce a specific action in the system to which the febrile action gives way? I believe that it does. If my theory is correct, it produces a diathesis that is incompatible with the action of fever, or rather it superinduces that which (for want of better name) I term mercurial action, to which the primary fever gives way. I never push this mercurial action beyond that point in which the gums and breath are slightly affected. I have never met with any bad consequences resulting from this administration of mercurials to horses, cows, or dogs.

Llanwrst, Nov. 11, 1846.

THE MEMORIAL.

To the Right Honourable Sir George Grey, Secretary of State for the Home Department.

The Memorial of the President and Council of the Royal College of Veterinary Surgeons.

Sir,—The Council of the Royal College of Veterinary Surgeons being fully aware that application has been made for a new Charter to grant authority over the veterinary profession, respectfully address you, honourable Sir, in the hope of explaining their motives, laying before you a statement of what they have done, and what they are endeavouring to do.

When it pleased Her Majesty, by the issue of the present Charter, graciously to accede to the humble prayer of the members of the veterinary profession, in which prayer all the professors and practitioners equally joined, and against which no voice was raised,

the conditions of the veterinary profession itself, and of the interests asssociated with it, were in a very different state to that in which they can at the present time be shewn to exist.

The Charter, among other privileges, gives the Council of the Royal College of Veterinary Surgeons power to test the qualifications of those persons anxious to become members of their body, and, consequently, is of important use in regulating the examinations of those who have been students at the veterinary colleges of London and Edinburgh.

When the Council of the Royal College of Veterinary Surgeons were first instituted, the Colleges both of England and Scotland required supervision.

At the London College the pupils had been examined by a board constituted principally of highly talented members of the medical profession; the only persons upon that board pretending to investigate the more important branch of study and immediate object of the examination being the Professor and Deputy-professor, who, being teachers also, were thus the principal judges deciding on the merits of their own pupils.

Some pupils received diplomas after a very brief interrogation, and many were admitted into the profession who had attended their preparatory studies but a few months.

No person present at that Board of Examiners was qualified to test the knowledge of the pupil concerning the pathology of cattle, sheep, dogs, &c.; nor can the Council discover that any gentleman who received his diploma from that Board was in any manner examined upon those branches of study in which the interests of the agriculturist are principally concerned.

The Scotch College presented features even more objectionable; but as the facts known concerning the proceedings of this school are too gross to be advanced by parties who might be supposed interested to exaggerate, the Council of the Royal College of Veterinary Surgeons will only refer to the documents which they have in their possession, and which they are ready to produce.

At a meeting of the veterinary surgeons of Scotland, held in Glasgow, July 9th, 1844, a memorial to the Council of the Royal College of Veterinary Surgeons was agreed to.

That memorial stated that the Edinburgh College was the property of a single individual—that the lectures there delivered were given only thrice a-week during the first two months of the session, and only five times a-week during the latter period, the length of the session being five or six months—that great irregularities were permitted in the time and manner of giving instruction, and in conducting the examination—that the Professor constituted the sole teacher of the College on every branch of science—that many pupils

received diplomas after six months' irregular attendance at the school, and that the examinations were unsatisfactory—that the profession as a body had requested an explanation of the Professor's object and intention in seeking a new Charter, and had obtained no reply to their enquiry—that the practitioners of Scotland were grateful to Her Majesty for the grant she had been graciously pleased to accord, and forwarded subscriptions towards defraying the expenses which had been incurred, and in aid of the Royal College of Veterinary Surgeons.

The Royal College of Veterinary Surgeons having sent a deputation to Edinburgh to witness the examinations of the pupils, the report of the deputation states that there were no examinations on chemistry—none on materia medica—none on physiology—none on the diseases of cattle that deserved the name—that parties not appointed by the Council were allowed to take part in the examinations—and that Professor Dick, during the examinations, walked round to each examiner, and, in a whisper, took his opinion as to the qualification or disqualification of the student.

Such facts, though briefly stated, and capable of much enlargement, will convey some idea of the condition of the schools of London and Edinburgh when the Charter called into existence the Royal College of Veterinary Surgeons; and if, in the reformation of old and established abuses, some enmity has been excited, perhaps the circumstance justifies little surprise.

The Council of the Royal College of Veterinary Surgeons, however, have from the date of their institution endeavoured, as far as possible, to consult the feelings of all the parties concerned. No sudden changes were introduced; the members of the former examining boards (with the exception of the professors, who, by a clause introduced by the Government into the Charter, were incapacitated) were re-appointed, and in the first instance no alteration was made in the manner of conducting the examinations.

The professors of the schools were elected members of the Council; and when the Principal Veterinary Surgeon to the Army was not elected by the profession, the Council appointed that gentleman a vice-president, in order to secure the advantage of his experience.

A code of bye-laws for the government of the body corporate was framed; and if subsequent events have shewn that some of the regulations therein instituted need revision, the Council of the Royal College of Veterinary Surgeons have at all times expressed themselves anxious to receive advice, and are happy in being able to assert that what they have hitherto done has met with general approbation.

Referring to the education of the pupils, those bye-laws have rendered the examinations more general; and no student now re-

ceives a diploma who has not been fully and equally tested upon all the recognised branches of study.

The conduct of the Colleges has been in some degree thereby improved. At the London College lectures were this year delivered upon glanders and upon rabies, diseases so fatal to human and animal life.

At the Edinburgh College, since the establishment of the Royal College of Veterinary Surgeons, an Anatomical Demonstrator has been engaged, and a Lecturer on Chemistry appointed.

The Council of the Royal College of Veterinary Surgeons have received no complaints as to the mode of conducting the examinations, but, on the contrary, are happy to state that individuals, after passing the ordeal, have expressed and published sentiments of satisfaction at the manner of proceeding of their Board of Examiners.

The Council of the Royal College of Veterinary Surgeons can with satisfaction refer to the course they have pursued. They have courted advice, and, where they might presume to do so, have solicited opinions; they have declared their proceedings public, and thrown their meetings open to the body of the profession; they have disclaimed secrecy, and ask for no protection but what rectitude of conduct and uprightness of principle can afford. To all communications and suggestions they have ever paid the most considerate attention; and they are happy to say they are honoured by the confidence of the profession over the interests of which they are appointed to preside.

Conscious of having so done, and being so supported, it was with surprise that the Council of the Royal College of Veterinary Surgeons heard certain parties had been attempting to overthrow the power which Her Majesty had seen occasion to establish, nor do they understand the grounds upon which these parties base their application for a new Charter.

In the expectation of ascertaining the causes of complaint, and of explaining more fully their conduct and motives, your memorialists sought an interview with the Governors of the Royal Veterinary College: the obtainment of that interview was mainly due to his Royal Highness the Duke of Cambridge, the President of the Royal Veterinary College.

At that interview, the condescension with which his Royal Highness was pleased to honour the representatives of the Council, and the courtesy which the Governors of the College displayed, have left a deep and lasting impression upon the minds of your memorialists, combined with a sincere regret that they are on principle unable to comply with the wishes of those towards whom they acknowledge the most profound respect.

The Council of the Royal College of Veterinary Surgeons learn that there are four parties combined to obtain a new Charter, viz. the Governors of the Royal Veterinary College of London, the Council of the Agricultural Society of England, the Council of the Highland and Agricultural Society, and the Professors of the London and Edinburgh Schools.

These parties seek to obtain authority over the concerns and management of the veterinary profession by constituting a Veterinary Board, to which the Council of the Royal College of Veterinary Surgeons shall be subjected.

That such authority is needed is not shewn, and why it is sought is not declared. The profession have not solicited to be thus controlled, and the public have not seen proper to support the request. The prayer for the new Charter stands simply as a prayer, unsupported by any just cause, show, or pretence.

When the Right Honourable Sir James Graham announced that certain parties had applied either to have a new charter granted or the present one altered, he stated that the application was made by persons taking a deep interest in the advancement of the veterinary profession. The Council of the Royal College of Veterinary Surgeons are happy to acknowledge the feeling here expressed, and at the same time gratefully say, they believe it to be sincere; but nevertheless they are aware that the best intentions may be mistaken, and they are consequently anxious to know how or in what manner the proposed alterations are to tend to the advancement of the profession.

The Right Honourable Sir James Graham intimated that the advantage would spring from the cessation of opposition from influential bodies, and the connexion of the veterinary profession with personages of rank would reflect dignity on the entire body. The Council of the Royal College of Veterinary Surgeons, however, in their public capacity would be unworthy of confidence if they feared an opposition not supported by right, and, when opposition can be shewn to be so supported, they are prepared to give way before it; and with regard to dignity, though in sincerity professing all respect for and anxious to receive the support of those who lend lustre to our social sphere, yet they feel that the time has come, when, if a profession is to obtain respect, it must be gained by its ability to command attention—therefore on the merits of its members the Council are content and desirous to let the claims of the veterinary profession rest.

The Governors of the Royal Veterinary College of London cannot be fully aware of the deficiencies of the institution over which they preside, and how greatly those deficiencies affect the veterinary profession. That College has never perfected the object

for which it was intended, but remains to this day most imperfect and incomplete.

The Agricultural Societies have far more reason to be pleased than displeased with the working of the Charter, and, had not these bodies been misinformed, they would never have imagined they had cause to complain.

It is true these Societies pay annually certain sums towards the support of the Lectures at the London and Edinburgh Colleges, and for the liberality therein displayed the thanks of the public generally, and of the veterinary profession in particular, are fairly due; but still the opportunities afforded by the Colleges for the study of cattle pathology, &c. are extremely imperfect, and many important diseases are never noticed in the theatres of those institutions.

The Royal College of Veterinary Surgeons has done much to advance the interest of the agriculturist by insisting that the student pay attention to that branch of study which the farmer and grazier more particularly regard. Before the Charter was granted there were no examinations connected with cattle practice at either of the Colleges; and since this subject has received special attention, the Examiners appointed by the Council of the Royal College of Veterinary Surgeons have, through their Chairman, repeatedly had occasion to express their dissatisfaction to the professors and students at the deficiency exemplified in this branch of veterinary science. The Council of the Royal College of Veterinary Surgeons would willingly do more, had they the power to advance the welfare of the agriculturist, whose interest they feel they are bound to protect; but the Council regret that the Agricultural Societies do not communicate with them.

The Professors of the Colleges have no just cause to urge complaints, nor have they by their late conduct gained any ground whence to assert a right to additional authority: and it is with sorrow the Council of the Royal College of Veterinary Surgeons remark, that the individual members of the veterinary profession the proposed amended Charter would exalt, are the very persons whom a long and patient trial has taught your memorialists are little worthy of confidence.

Your memorialists feel great reluctance to touch upon this point of the subject. The provocation and annoyance to which the Council have been subjected from the Professors of the Colleges have been such as would not perhaps be readily believed; and to indicate only to what extent such provocation and annoyance have been carried, your memorialists will merely allude to a few facts.

A groundless accusation of fraud and deceit has been advanced against members of the Royal College of Veterinary Surgeons, and

openly urged by the professors in the hope of nullifying the Charter. Such accusation was plainly met and clearly refuted; yet, by the professors personally no retraction of the charge has been made; although, at the interview with the Governors of the Royal Veterinary College, the members of the veterinary profession were by the Governors most fully and freely exonerated from this unjust accusation.

The Professors have in their public capacity offered every obstruction to the operation of the regulations which the Council of the Royal College of Veterinary Surgeons were empowered by the Charter to enact; and to such a reckless extent has this opposition been carried, that the Council have, in one instance, been obliged to pass a special vote to rectify the confusion which had been thereby created in the examination of the pupils at the Edinburgh School.

The Council of the Royal College of Veterinary Surgeons have endeavoured by every means and the most studied forbearance to meet the wishes and views of the Professors, but are pained to add they have not been successful in their attempts.

The present movement against the existing Charter was instigated by the Professors; and on inquiry it will be found, that neither the Governors of the Royal Veterinary College, nor the Councils of the Agricultural Societies, would have moved in the matter save for their representations.

The petition against the Charter was concocted by the Professors, many of the statements contained in which are wholly fictitious.

The Council of the Royal College of Veterinary Surgeons would acknowledge superior ability, and have no desire to deny the claims of genius; but they cannot admit that the Professors are by their talent placed above the generality of the veterinary profession. As literary men, the Professors are unknown; and the works from which the pupils at both the Colleges study are the productions of Members of the Council and of the profession. As practical men, the Professors have no special repute; and as discoverers in science, they have no fame. The Professors are in no particular distinguished as men of genius or learning, and your memorialists, therefore, see no ground upon which their superiority can be established.

The motives which instigate the Professors will, if sifted, be found to be of a personal and pecuniary nature: they seek authority and exaltation, and they want to increase the number of pupils by rendering the admission into the profession easy, and, in some degree, under their command.

The Council of the Royal College of Veterinary Surgeons deeming that the power given them by the Charter was granted

only for the protection of the public and the advancement of the profession, have endeavoured to employ it to those ends; and they beg that their conduct may be strictly investigated, pledging themselves to afford every facility to the enquiry.

Already, by rendering the examinations of the candidates for diplomas more strict and equal, the Council of the Royal College of Veterinary Surgeons have to a certain degree improved the conduct of the Colleges; but the want of co-operation and the hopes kept alive by the present agitation have in some measure lessened their power to do good.

Therefore, they beg that the matter be enquired into and speedily decided on; feeling certain that, upon investigation, the Governors of the Royal Veterinary College and the members of the Agricultural Societies will perceive the Council of the Royal College of Veterinary Surgeons have, by enlarging the curriculum of study and insisting on the proficiency of the student, taken the best steps towards elevating the Colleges, and protecting the agriculturist against the manufacture of unskilful and unqualified practitioners of veterinary science.

In the course which the Council of the Royal College of Veterinary Surgeons have hitherto adopted they are prepared to persevere, but at the same time they are willing to receive suggestions and anxious to obtain information. If it can be shewn that any sacrifice on their part will benefit the public or advance the veterinary profession, in sincerity they declare they will cheerfully make it. They humbly entreat you, honourable Sir, to rigidly investigate the whole of the proceedings before you advise the issue of any further grant to the parties petitioning for a new Charter; and respectfully request, that if, at any future period, such new Charter should be contemplated, they may be apprised before the deed is signed, and be enabled to shew cause why it should not be issued.

And your Memorialists
will ever pray, &c.

THOMAS TURNER, PRESIDENT,
on Behalf of the Council.

ROYAL AGRICULTURAL SOCIETY OF ENGLAND.

Royal Veterinary College.—Professor Sewell, in performance of the request of the Council at its previous meeting, presented a report of the number of pupils instructed at the College in a knowledge of the diseases peculiar to cattle, sheep, and pigs, agreeably with the intentions of the Society.

Epidemic among Cattle.—Professor Sewell then obtained leave of the Council that Mr. Simonds, the Professor of Cattle Pathology at the Veterinary College, should be allowed to address them on the subject of the disease prevailing among cattle.

Mr. Simonds observed, that he did not think any benefit could possibly arise to agriculturists by the Society's circulating, as it had been, he believed, proposed, a paper containing instructions for the treatment of cases of pleuro-pneumonia, as it must, he thought, be borne in mind, that the early symptoms of the affection were so ambiguous and so little developed, that even veterinary surgeons long accustomed to the diseases of ruminating animals sometimes failed to detect the existence of the affection in its earliest and curable stages; consequently, the measures recommended would too frequently prove more injurious than beneficial to the interest of the farmer. He did not think that the fatality attending pleuro-pneumonia was so great at the present time as it had been heretofore, many cases within his own experience having been successfully treated; and veterinary surgeons, in his opinion, had become better acquainted with this and other diseases of cattle since the extended system of instructing pupils had, through the munificence of the Society, been carried out at the veterinary colleges; and both himself and his colleagues were most anxious to do all in their power to promote the laudable objects of the Society. He flattered himself that the delivery of a course of lectures—not confined to one class of organs, but embracing the structure, functions, and diseases of all parts of the body—had already been productive of great benefit; and expressed his willingness to furnish to the Council whatever report they might require, along with a synopsis of his lectures. He regretted the small number of cattle patients sent to the College. In his opinion, there were many causes for this deficiency, and he feared, also, some which could not be removed. He begged to suggest that members of the Society should be informed how much they had it individually in their power to aid the joint objects of the Society and the College by sending up diseased animals for anatomical examination and illustration in the lecture room.

Mr. Barclay, M.P., Mr. Shaw, and Mr. Fisher Hobbs, having then addressed the Council on this subject, Professor Sewell invited the members generally to visit the College, and inspect the arrangements already made for the reception of cattle-patients. He regretted the failure of diseased animals for investigation, which could only be obtained at the market price of butchers' meat, and of the Cattle Infirmary at Islington, which he had taken so much interest and pains in getting established.

Mark Lane Express.

THE VETERINARIAN, DECEMBER 1, 1846.

Ne quid falsi dicere audeat, ne quid veri non audeat.—Cicero.

In our present Number will be found two letters in favour of Veterinary Apprenticeship; though one of them—that of Mr. Clements—complains, and with reason complains, of the by-law regarding apprenticeship as it affects him.

With the practical arguments of Mr. Tombs, in illustration of the advantages of apprenticeship, we will not pretend to combat. They are *argumenta ad hominem*, admitting of no reply—home thrusts that cannot be parried. We are not, as Mr. Tombs imagines, ourselves *adverse* to apprenticeship. Led by what the College of Surgeons had done, and further instigated by a feeling towards our own schools, we certainly suggested—and we repeat the suggestion—whether three years' engagement in the acquirement of professional knowledge would or could be any how made to answer the end of a five years' apprenticeship. Mr. Tombs seems to think that the three years ought to be made *four*, consenting to give up three years of that term of which we had contemplated yielding four. There is, therefore, but a year between us; still, that year we feel to be an important one. We find we have no space left to discuss the question further here; for the present, therefore, we leave it in the hands of the Council, not doubting but that, when they re-consider the matter in all its various bearings, they will come to a settlement upon it conducive to the best interests of the veterinary profession.

PROCEEDINGS OF THE COUNCIL OF THE ROYAL COLLEGE OF VETERINARY SURGEONS.

Sitting of October 28, 1846.

Present—the PRESIDENT, the SECRETARY, Messrs. ERNES, MAYHEW, HENDERSON, CHERRY, sen., J. TURNER, W. ARTHUR CHERRY, and BRABY.

THE minutes being read and confirmed, the Committee appointed to prepare a draft of a Memorial to be presented to the Secretary of State, made their report, and laid before the Council the draft which they had drawn up and presented, as a document in which they unanimously agreed.

The draft from the Committee was then read by the Secretary.

Mr. J. Turner made a few observations on one passage; but on a re-perusal he withdrew his objection; and it was moved by *Mr. Henderson* and seconded by *Mr. J. Turner*, "That the draft of a Memorial laid before the Council by the Committee be adopted," which, after a few remarks from several members, expressing approval and satisfaction at the result of the labours of the Committee, was carried, with only a single dissentient, who, by the way, ought not to have voted on the question.

The motion, "That it be forwarded to the Home Office" as early as the convenience of the President permitted, was also carried.

The death of the highly respected Mr. King, sen., having caused a vacancy in the number of Vice-Presidents, the Council proceeded to fill it up by ballot. The choice unanimously fell upon Mr. Henderson, each balloting paper bearing alone the name of that gentleman, who briefly returned thanks upon his appointment.

The correspondence to and from Dr. Mercer was then read. The letter of Dr. Mercer was of a very offensive nature; and, after a good deal of discussion, the consideration of the question was postponed until a special meeting could be called to take into consideration the whole matter.

The Secretary read a letter he had received from Mr. Holliday, of Luton, which was highly approved. It was moved by *Mr. W. Arthur Cherry*, and seconded by *Mr. J. Turner*, "That the letter be entered on the minutes, and the writer receive the thanks of the Council." Carried.

A letter was read from the Treasurer, stating that he was under the necessity of resigning the office, and entering into reasons for so doing. As a matter of course, the Council, though with regret,

could but accept the resignation of Mr. King; and a motion by *Mr. Mayhew*, seconded by *Mr. J. Turner*, "That a vote of thanks for the able manner in which Mr. King had discharged his duties while acting as Treasurer be tendered to that gentleman," it was passed unanimously.

At the time when the Charter was going through its various stages, Professors Spooner and Simonds stated their wish to be personally mentioned amongst those who were the petitioners to Her Majesty for the grant of a Charter, and whose names were specially mentioned in the preamble to that deed of incorporation, at the same time stating that they were themselves willing to pay the extra charges which would be incurred thereby, amounting to £10 for each name inserted. It appears that this was clearly understood by the United Committee of Veterinary Surgeons as a simple business transaction, and was acted on by them accordingly. Upon the transfer of accounts from that Committee to the Council, this matter was handed over, and the Council directed the Treasurer to remind these parties that there were such claims outstanding against them.

A letter was now read from Professor Spooner, jointly for Professor Simonds and himself, *repudiating* any such claim, and expressing *surprise* (!) at being reminded of their own voluntary engagements. There certainly was not any *written* agreement; it was one of good faith. Some very stringent remarks were made by several members on a reply so subversive of honourable dealing being sent to the Council.

It was moved by *Mr. Henderson*, and seconded by *Mr. J. Turner*, "That the letter of Professor Spooner be entered on the minutes;" which was carried.

A letter was also read from a Mr. Flintoff, a pupil at the Edinburgh College, who has been several times rejected, asking for the return of the examination fee (one guinea). The application was not deemed worthy of notice.

Mr. Mayhew gave notice of motion.

Sitting of November 11, 1846.

Present — the PRESIDENT, the SECRETARY, Messrs. FIELD, GOODWIN, ERNES, KING, WILKINSON, BRABY, CHERRY, sen., HENDERSON, ARTHUR CHERRY, J. TURNER, MAYHEW.

The minutes being read and confirmed, the President reported to the Council that the Memorial to the Secretary of State had been duly forwarded, and that he was happy to inform them that he had also received a favourable reply from Mr. Under Secre-

tary S. M. Phillips, in which the prayer of the Council was assented to; namely, that no steps should be taken towards the granting to any parties a new Charter without the Council of the Royal College of Veterinary Surgeons being apprised thereof; and, also, that there was nothing at present in progress towards the same object, so far as the Secretary of State was concerned. Some remarks were made on the favourable tone of the reply, and *Mr. Arthur Cherry* moved, and *Mr. King* seconded, "That the reply from the Home Office be entered on the minutes." Carried.

Mr. Arthur Cherry, as Honorary Secretary to the Registration Committee, reported progress:—That upwards of six hundred circulars had been issued to members whose addresses were known—that about two hundred and sixty had been returned, and, on the whole, satisfactorily filled up, conveying a good deal of valuable information—that there were still a large number to be returned, and also a very large number of members' addresses to be obtained; and unless the returns were made, the Committee could not enter such parties as positively *bona fide* members: they must stand as doubtful. District lists could not contain any names unless they were known to be correct.

Mr. King having tendered his resignation of the office of Treasurer, and which the Council had accepted, gave in his report of the state of the accounts, together with the books, &c.

Mr. King, with the utmost feeling, returned thanks for the manner in which his resignation had been accepted, and also for the kindness which he had always met with during the period of his holding office.

The office of Treasurer being now vacant, a ballot was taken, and the choice fell unanimously on Mr. Field, who was elected accordingly, and the books and accounts were duly handed over to that gentleman.

Mr. Braby made some remarks on the signing of cheques. A general conversation ensued, simply relating to internal management of Council duties.

The Secretary recapitulated the proceedings which had taken place in respect to the question arising out of Dr. Mercer's conduct; the letters connected with the subject were also read over.

Mr. Ernes, in a warm speech, warned the Council not to be hasty in dismissing Dr. Mercer from the office of Examiner for Scotland.

Mr. Arthur Cherry urged that, at present, there was no question before the Council respecting the dismissal of any party. The question was, what was the nature and extent of the offence alleged to have been committed; after which would follow the consideration of the manner in which it was to be met. Dr. Mercer

himself admitted that what had been alleged was true; therefore there could be no occasion to go farther into that part of the question. Dr. Mercer's letter was of a most gross character, and must not be allowed to pass unnoticed.

Mr. Goodwin very strongly supported these latter views, and urged that Dr. M.'s conduct in addressing the Council in such terms as he had done, was in the highest degree improper: he was an appointed officer of the Council, and, of course, as such was amenable to them.

Mr. Mayhew followed in the same view of the question, as also that Dr. Mercer's demand for the authority upon which the report was founded was ridiculous, as Dr. M. had himself admitted the correctness of the charge alleged against him.

Messrs. Wilkinson and *Field* defended Dr. M. in so far as they considered that he was acting under erroneous views; but they must equally with others condemn Dr. M.'s letters.

The discussion became a general one, all the members taking part; and it was finally arranged that a letter, as proposed by Mr. Goodwin and supported by Mr. J. Turner, be sent to Dr. Mercer, and the question postponed till the issue of that letter be known. This decision of Council is in accordance with the course that they have all along pursued—that of forbearance.

Mr. Mayhew's motion, "That the four pupils whose diplomas had been withheld under protest since the examinations at Edinburgh in 1845 be now granted," was taken into consideration, and, after a general discussion, the motion was carried, and that Messrs. Seaman, Waters, jun., Osborne, and Lyon—the names of the four parties—have their diplomas accordingly.

Letters enclosing subscriptions were read from Messrs. Thacker and Price.

Several letters were read not requiring especial notice.—Adjourned.

MISCELLANEA.

The Veterinarian.

We have been accused, in the October Number of The Veterinarian, of unfair play in having copied articles from that periodical without acknowledgment. We are very sorry that the *Ulster Gazette* should at any time have been subject to the accusation, which even the inexperience of the parties who conducted the journal in its infancy cannot excuse. We beg to assure our excellent and useful cotemporary, that, under the present management of the *Ulster Gazette*, such malpractice can never again occur.—*Ulster Gazette.*

Fidelity Rewarded.

The will of Mary Anne Johnson, late of Well Walk, Hampstead, spinster, who died recently, has passed the seal of the Prerogative Court of Canterbury. The personal estate of the testatrix is sworn under £25,000, and the will contains the following singular bequests:—"I give to my black dog, Carlo, an annuity of £30 a-year during the dog's life, to be paid half-yearly. Unto each of the cats, Blacky, Jemmy, and Tom, I give an annuity of £10 a-year, to be paid half-yearly. Margaret Potson and Harriet Holly, my mother's old servants, to take charge of the cats."

Query—what will the authorities at the Legacy Office do? As it respects "Legacy Duty," the legatees are certainly "strangers in blood" to the deceased, and in that capacity are liable to a duty of 10 per cent. on the value of their life interest; but the Legacy Duty Act, on the other hand, says nothing about duty payable on legacies bequeathed to dogs and cats.—*Globe.*

Dumb Dogs.

In coming from Séchelles we touched at Juan de Nova, where I had an opportunity of seeing, for the first time, an island of purely coral formation. It is of a horseshoe shape, about twenty miles long and from half to three quarters of a mile broad, with extensive reefs around it, abounding with turtle.

Dogs of different kinds have been left there from time to time, and, finding abundance of food in the turtles' eggs, young turtle, and sea-fowl, have multiplied prodigiously, so that there are now some thousands of them. I can testify, from personal observation, that they drink salt water, and *they have entirely lost the faculty of barking.* Some of them that have been in captivity several months had not yet lost their wild looks and habits, nor had they any inclination for the company of other dogs, nor did they acquire their voice.

You may, perhaps, have heard of this before. If so, my notice will confirm your knowledge; if not, I hope the facts, being of my own demonstration, will prove interesting. On the islands the dogs congregate in vast packs, and catch sea-birds with as much address as foxes could display. They dig up the turtle eggs, and frequently quarrel over their booty. The greater part of them droop their tails like wolves, but many carry them curled over their backs. They appear to consist of spaniel, terrier, Newfoundland, and hound, in various degrees of mixture, and are of all colours except pure white and brindled.

A Letter, dated Port Louis, Mauritius, from C. Clarke, Esq., to Professor Bell.

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ERRATA

P. 611, line 9, *for* "they each immortalized himself by the greatness of his discoveries," *read* "they each immortalized themselves by the greatness of their discoveries."
P. 612, note, *for* "Mr. Hancock," *read* "Mr. Haycock."

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